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**2009 ANNUAL POST-REMEDIATION  
MAINTENANCE AND GROUNDWATER  
MONITORING REPORT**

**United Technologies Corporation  
Pratt & Whitney Division  
Willow Brook and Willow Brook Pond  
East Hartford, Connecticut**

**January 2010**

**Volume 2 of 3**

**Prepared for**

**UNITED TECHNOLOGIES CORPORATION  
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**Prepared by**

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100 Northwest Drive  
Plainville, Connecticut 06062**

***An Employee Owned Company***

**Comm. No. 88UT907.001**

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Pratt & Whitney  
400 Main Street  
East Hartford, CT 06108



**Pratt & Whitney**  
A United Technologies Company

January 21, 2010

**State of Connecticut  
Department of Environmental Protection  
Remediation Division  
79 Elm Street  
Hartford, CT 06106-5127**

Attn: Maurice R. Hamel

**RE: United Technologies Corporation  
Pratt & Whitney Division  
Post Remediation Maintenance and Monitoring  
Willow Brook and Willow Brook Pond (SRD-130) and Willow Street North**

Dear Mr. Hamel:

*I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, that the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information is punishable as a criminal offense under §53-a-157b of the Connecticut General Statutes and any other applicable law.*

Sincerely,

**UNITED TECHNOLOGIES CORPORATION  
PRATT & WHITNEY DIVISION**

David Russell  
Director, Facilities & Services

Attachment

cc: Gil Richards, DEP  
Lauren Levine, UTC  
Brian Cutler, LEA  
Juan Perez, EPA





Loureiro Engineering Associates, Inc.

January 21, 2010

**State of Connecticut**  
**Department of Environmental Protection**  
**Remediation Division**  
79 Elm Street  
Hartford, CT 06016-5127

Attn: Maurice R. Hamel

**RE: United Technologies Corporation**  
**Pratt & Whitney Division**  
**Post Remediation Maintenance and Monitoring**  
**Willow Brook and Willow Brook Pond (SRD-130) and Willow Street North**  
**LEA Comm. No. 88UT907**

Dear Mr. Hamel:

In accordance with Paragraph B.1.e of the above referenced Consent Order and Appendix C and D of the document entitled *Remedial Action Work Plan and Request for Variance Engineered Control of Polluted Soils, Willow Street and Willow Street North PCB Remediation Project*, approved by the Department of Environmental Protection on February 10, 2006, attached please find the 2009 Annual Post Remediation Maintenance and Groundwater Monitoring Report for Willow Brook and Willow Brook Pond and Willow Street North. The initial maintenance and monitoring activities were initiated following the August 31, 2002 completion of remediation activities at Willow Brook Pond and were augmented to include those monitoring and maintenance activities associated with the Willow Street North Project following completion on August 11, 2006. In accordance with Paragraph B.8 of the above referenced Consent Order, I hereby certify that:

*I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, that the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information is punishable as a criminal offense under §53-a-157b of the Connecticut General Statutes and any other applicable law.*



If you should have any questions or comments, please contact me or Lauren Levine of United Technologies Corporation at (860) 728-6520.

Sincerely,

**LOUREIRO ENGINEERING ASSOCIATES, INC.**

A handwritten signature in black ink, appearing to read 'B. Cutler', written over a horizontal line.

Brian A. Cutler, P.E., L.E.P.  
Senior Vice President

Attachment

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## Table of Contents

	Page
<b>1. INTRODUCTION</b>	<b>1-1</b>
<b>2. LOCATION AND SITE DESCRIPTION</b>	<b>2-1</b>
<b>3. BACKGROUND</b>	<b>3-1</b>
<b>4. GROUNDWATER MONITORING</b>	<b>4-1</b>
4.1 Description of Groundwater Monitoring Activities	4-1
4.2 Groundwater Elevations	4-2
4.3 Quality Assurance and Quality Control Procedures	4-3
<b>5. GROUNDWATER QUALITY</b>	<b>5-1</b>
5.1 Summary of Analytical Data	5-1
5.2 Data Quality Assessment and Data Usability Evaluation	5-2
5.3 Observed Trends in Groundwater	5-3
5.4 Evaluation of Results Relative to the RSRs	5-5
5.4.1 Surface Water Protection Criteria	5-5
5.4.2 Volatilization Criteria	5-6
5.4.3 Compliance Determination	5-7
<b>6. ENGINEERED CONTROL MAINTENANCE &amp; MONITORING</b>	<b>6-1</b>
6.1 Summary of Maintenance & Monitoring Activities	6-2
6.2 Corrective Action	6-2
<b>7. CONCLUSIONS</b>	<b>7-1</b>



## **TABLES**

Table 5-1	Summary of Sampling and Analytical Information
Table 5-2	Summary of Constituents Detected in Groundwater
Table 5-3	Exceedances of Surface Water Protection Criteria
Table 5-4	Exceedances of Industrial/Commercial Volatilization Criteria
Table 5-5	Exceedances of Residential Volatilization Criteria
Table 5-6	Exceedances of Industrial/Commercial Volatilization Criteria (2003 Draft)
Table 5-7	Exceedances of Residential Volatilization Criteria (2003 Draft)

## **FIGURES**

Figure 2-1	Site Location Map
Figure 4-1	Site Plan
Figure 4-2	Groundwater Contour Map – March 2009
Figure 4-3	Groundwater Contour Map – June 2009
Figure 4-4	Groundwater Contour Map – September 2009
Figure 4-5	Groundwater Contour Map – December 2009

## **APPENDICES**

Appendix A	Copies of Field Paperwork
Appendix B	Copies of Laboratory Reports
Appendix C	Quality Assurance / Quality Control Documentation
Appendix D	Select Constituent Concentration Graphs
Appendix E	Post-Remediation Maintenance Monitoring Forms



## ACRONYMS

CSM	Conceptual Site Model
CT ETPH	Connecticut Extractable Total Petroleum Hydrocarbons
CWTP	Concentrated Waste Treatment Plant
DCE	Dichloroethylene
DEP	Connecticut Department of Environmental Protection
DQA	Data Quality Assessment
DQO	Data Quality Objective
DUE	Data Usability Evaluation
EDD	Electronic Data Deliverable
ELUR	Environmental Land Use Restriction
EPA	United States Environmental Protection Agency
ERA	Environmental Resource Associates
GB PMC	GB Pollutant Mobility Criteria
IDEC	Industrial/Commercial Direct Exposure Criteria
IMS	Information Management System
IVC	Industrial/Commercial Volatilization Criteria
LCS	Laboratory Control Sample
LEA	Loureiro Engineering Associates, Inc.
MS/MSD	Matrix Spike / Matrix Spike Duplicate
NOV	Notice of Violation
PCBs	Polychlorinated Biphenyls
PCE	Tetrachloroethylene
PID	Photoionization Detector
QA/QC	Quality Assurance/Quality Control
RAWP/RFV	Remedial Action Work Plan, Request for Variance
RAWP	Remedial Action Work Plan
RCRA	Resource Conservation and Recovery Act
RCSAs	Regulations of Connecticut State Agencies
RCP	Reasonable Confidence Protocol
RDEC	Residential Direct Exposure Criteria
RPD	Relative Percent Difference
RSRs	Remediation Standard Regulations
RVC	Residential Volatilization Criteria
SOP	Standard Operating Procedure
SWPC	Surface Water Protection Criteria
TCE	Trichloroethylene
TSCA	Toxic Substances Control Act
UTC	United Technologies Corporation
VC	Volatilization Criteria
VOCs	Volatile Organic Compounds



## UNITS

mg/kg	milligrams per kilogram
mg/l	milligrams per liter
µg/l	micrograms per liter
%	percent



## 1. INTRODUCTION

United Technologies Corporation (UTC)/Pratt & Whitney retained Loureiro Engineering Associates, Inc. (LEA) to perform the post-remediation maintenance and groundwater monitoring associated with the remediation of polychlorinated biphenyl (PCB) contaminated soil and sediment within and immediately surrounding Willow Brook, Willow Brook Pond, and Willow Street North (herein after referred to as the “Project Area”) at the UTC/Pratt & Whitney manufacturing facility in East Hartford, Connecticut (herein after referred to as the “Site”). The remediation of soil and sediment within and surrounding Willow Brook and Willow Brook Pond was undertaken to satisfy the requirements of Consent Order SRD-130 and was completed on August 31, 2002. The remediation of soil in areas between and below Willow Street and Willow Brook Pond (the Willow Street North Project) was undertaken by UTC/Pratt & Whitney on a voluntary basis in accordance with the document entitled *Remedial Action Work Plan and Request for Variance, Engineered Control of Polluted Soils, Willow Street and Willow Street North PCB Remediation Project* (RAWP/RFV), approved by the Connecticut Department of Environmental Protection (DEP) on February 10, 2006. The Willow Street North Project was completed on August 11, 2006.

The following report has been prepared in accordance with the requirements of paragraph B.1.e of Consent Order SRD-130 and Appendix C and D of the RAWP/RFV. This report presents the 2009 annual summary of post-remediation groundwater and maintenance monitoring conducted to verify the adequacy of the remediation and long-term effectiveness of the engineered control installed at Willow Brook, Willow Brook Pond and Willow Street North.

As detailed in Section 5, no PCBs were detected in any of the groundwater samples collected and analyzed in 2009. The absence of detectable concentrations of PCBs in groundwater indicates that the remediation activities performed to date have been effective in eliminating PCBs as a groundwater contaminant source. Additionally, concentrations for inorganic constituents and volatile organic compounds (VOCs) detected in groundwater are consistent with historic background water quality data from monitoring wells located upgradient of the Project Area.

There are sufficient groundwater data at this time to make a compliance determination relative to the Remediation Standard Regulations (RSRs). However, as required by the regulations, additional rounds of quarterly groundwater monitoring are necessary in order to further substantiate the presence or absence of trends in constituent concentrations at particular monitoring wells. Additional groundwater data will be collected in accordance with the approved RAWP/RFV to further substantiate this assessment.

## **2. LOCATION AND SITE DESCRIPTION**

The UTC/Pratt & Whitney East Hartford manufacturing facility is located at 400 Main Street in East Hartford, Connecticut. A Site Location Map is presented as Figure 2-1. The facility encompasses approximately 769-acres of contiguous land. Pratt & Whitney initiated aircraft engine manufacturing operations in East Hartford in December 1929. Current operations are conducted in an approximate 4 million square foot complex and include administration and management, manufacturing, testing, research and development and ancillary services. All of these activities take place in the western portion of the 769-acre property. The Rentschler Airport and the Klondike Area occupy the eastern portion of the property. UTC/Pratt & Whitney previously used these two areas as an airport and a storage/testing area, respectively.

Willow Brook Pond is located in the northwestern portion of the UTC/Pratt & Whitney East Hartford facility property and is approximately 4 acres in size. Willow Brook is a small stream transecting the UTC/Pratt & Whitney facility from the northern portion of the Rentschler Airport to the northwest portion of the current UTC/Pratt & Whitney operations complex. Willow Brook flows in a southwesterly direction in an open channel from Rentschler Airport, is then hard-piped underground to the inlet of Willow Brook Pond, and continues from the pond as an open channel to a culvert under Main Street. From Main Street, Willow Brook flows in an open channel for a distance of approximately 2,500 feet to the confluence with the Connecticut River. Willow Brook Pond, a single body of water when first created, has been modified various times through the years. It is now comprised of two ponds (Upper Willow Brook Pond and Lower Willow Brook Pond) subdivided by a culvert. The portion of Willow Street which was the subject of the 2006 remediation is adjacent to lower Willow Brook Pond.





### **3. BACKGROUND**

During routine draining of Willow Brook Pond in September 1997, an oil sheen was noticed seeping through the sediment. Pratt & Whitney reported the sheen to the United States Coast Guard and the DEP in accordance with discharge reporting requirements. Following the detection of PCBs in a sediment sample, the DEP issued Pratt & Whitney a Notice of Violation (NOV), No. PCB 97-08, on November 7, 1997. In response to the NOV, during the period from December 1997 to April 1999, UTC/Pratt & Whitney developed a sampling work plan and conducted three phases of investigation. These investigations provided the analytical data to sufficiently define the horizontal and vertical limits of contamination and served as the basis for the development of a remediation plan. During the period from April 1999 to November 2000, UTC/Pratt & Whitney identified and evaluated remedial alternatives to address the PCB-contaminated sediments within and immediately surrounding Willow Brook Pond. The Remedial Action Work Plan (RAWP) was submitted to the DEP and the United States Environmental Protection Agency (EPA) in November of 2000.

During the period from November 2000 to June 2001, numerous permit applications and plans were submitted to regulatory agencies to secure approvals for elements of the remediation project. In addition, during this period of time, the DEP was drafting Consent Order SRD-130 codifying expectations for the remediation of the Site. The Consent Order was signed by UTC/Pratt & Whitney on July 19, 2001 and the DEP on August 1, 2001.

In addition to satisfying the DEP requirements for remediation, UTC/Pratt & Whitney was also involved in a formal voluntary Resource Conservation and Recovery Act (RCRA) Corrective Action Program. On January 19, 2001, the EPA issued a determination that the remediation of contaminated sediments within Willow Brook and Willow Brook Pond was necessary. In order to obtain a decision that the remediation of the Site would be considered a final remedy for the contamination, EPA RCRA Corrective Action staff were involved in the review of the RAWP and were included in all project related correspondence with the various regulatory agencies.

The remediation and restoration activities performed within and immediately surrounding Willow Brook and Willow Brook Pond took place during the period from July 2, 2001 through August 31, 2002. The overall remedial action objective was to physically remove from the site, via excavation and off-site disposal, all soil and sediment containing total PCB concentrations in excess of 25 milligrams per kilogram (mg/kg) and then install a geotextile, soil and rock cap (engineered control) over the entirety of Willow Brook Pond and the open channel of Willow Brook from Willow Brook Pond to Main Street. In addition to satisfying the requirements of the



RSRs, the project was also implemented as part of a final remedy under the RCRA Corrective Action and Toxic Substances Control Act (TSCA) programs. Three areas within the Site were assigned additional remedial objectives. For the wetland and the southern portion of the Lower Willow Brook Pond, the additional remedial action objective was to physically remove all soil and sediment exhibiting contaminants at concentrations greater than the Residential Direct Exposure Criteria (RDEC) for PCBs. For the footprint of the Process Water Facility, inclusive of the small embayment west of the Process Water Facility, the additional remedial action objective was to meet the RDEC for PCBs in soils within 4-feet of the final grade, the Industrial/Commercial Direct Exposure Criteria (IDEC) for PCBs in soils defined as inaccessible by the RSRs, and the GB Pollutant Mobility Criteria (GB PMC) for soils above the seasonal high water table. All remedial action objectives were met during the course of the project.

In 2006, additional remediation of PCB contaminated soil was performed in two separate areas (areas South and East of Upper Willow Brook Pond, and North of the Concentrated Waste Treatment Plant [CWTP] area). The remediation activities were initiated on March 30, 2006 and were completed on August 11, 2006. The overall remedial action objective was to physically remove from the site, via excavation and off-site disposal, all soil and sediment containing total PCBs at concentrations in excess of 25 mg/kg and then install a geotextile and soil cap (engineered control) over the entirety of the project limits. In addition to satisfying the requirements of the RSRs, the project was also implemented as part of a final remedy under the RCRA Corrective Action and TSCA programs. Specific areas of the cap were constructed with a paved roadway surface or crushed rock surface for areas of the cap located below Willow Street or along the embankment of the ponds, respectively. For the areas along the perimeter of the engineered control, the additional remedial action objective was to meet the RDEC for PCBs for soils within 4-feet of the final grade, the IDEC for PCBs in inaccessible soils, and the GB PMC for soils above the seasonal high water table. All remedial action objectives were met during the course of the project.

The remedial action objectives also included the implementation of two institutional controls to ensure the long-term protectiveness of the remedy. The institutional controls consist of 1) an Environmental Land Use Restriction (ELUR) to ensure the affected area will not be used for residential purposes and to prohibit excavation and 2) a fence around the entire project area, exclusive of the roadway, to preclude access to Willow Brook and Willow Brook Pond. The fence around the project area remains in place and a draft ELUR for the entirety of the Willow Brook and Willow Brook Pond Project limits as well as the Willow Street North Project limits was submitted to the DEP on September 22, 2006.



#### **4. GROUNDWATER MONITORING**

Groundwater monitoring activities were performed in accordance with subsection (f) of Section 22a-133k-3 of the Regulations of Connecticut State Agencies (RCSAs). The groundwater monitoring plans detailed in Appendix D of the RAWP/RFV for Willow Brook and Willow Brook Pond and Appendix C of the RAWP/RFC for Willow Street North were designed to determine:

- The effectiveness of soil remediation in preventing further pollution of groundwater by substances from the release area;
- The effectiveness of any remediation taken to eliminate or minimize identified health or safety risks associated with such release; and
- Whether applicable surface water protection criteria (SWPC) and volatilization criteria (VC) have been met.

In June 2002, a total of eleven groundwater monitoring wells (WT-MW-40 through WT-MW-50) were installed around the periphery of Willow Brook and Willow Brook Pond. In September 2006, three additional monitoring wells (WT-MW-57 through WT-MW-59) were installed as part of the remediation activities completed in 2006. One new monitoring well (WT-MW-19SR) was installed in April 2008 to replace monitoring well WT-MW-19S. The locations of these monitoring wells are depicted on the Site Plan included as Figure 4-1 of this report.

##### **4.1 Description of Groundwater Monitoring Activities**

Groundwater samples were collected on a quarterly basis in 2009 from a total of fifteen groundwater monitoring wells (WT-MW-19SR, WT-MW-40 through WT-MW-50, and WT-MW-57 through WT-MW-59) located within the Project Area. It should be noted that no sample was obtained from monitoring well WT-MW-19SR during the December sampling event because there was not enough groundwater in the well to yield the required sample volume. All groundwater samples were sent under chain of custody control to Accutest Laboratories (Accutest) of Marlborough, Massachusetts and were analyzed for the following parameters: PCBs by Method 8082; VOCs by EPA Method 8260B; Connecticut extractable total petroleum hydrocarbons (CT ETPH) by the DEP approved method; and, unfiltered metals (arsenic, barium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, and zinc). In addition, one duplicate sample, trip blank sample, and equipment blank sample was collected and analyzed for



each sampling event. Copies of field paperwork are included as Appendix A and copies of laboratory reports are included in Appendix B of this report.

Groundwater samples were collected on a quarterly basis in 2009 from a total of fifteen groundwater monitoring wells (WT-MW-19SR, WT-MW-40 through WT-MW-50, and WT-MW-57 through WT-MW-59) located within the Project Area. Multiple groundwater samples were collected during the fourth quarter of 2009 from two monitoring wells (WT-MW-19SR and WT-MW-40) that comprise engineered control monitoring well network. The additional samples were collected as part of an ongoing groundwater/surface water interaction study that is being conducted independent of the Willow Brook/Willow Brook Pond Post-Remediation Monitoring Program. The intent of this study is to gain a greater understanding of the effects of standing surface water and potential other hydraulic influences on groundwater flow and contaminant transport in the northwest portion of the Site. Groundwater analytical data obtained from monitoring wells WT-MW-19SR and WT-MW-40 by means of the additional sampling events were incorporated into the Project Area database and evaluated as part of the 2009 Post-Remediation Monitoring Program. Findings of the groundwater/surface water interaction study will be summarized in the 2010 Annual Report.

## **4.2 Groundwater Elevations**

Depth to groundwater was measured in all fifteen monitoring wells on a quarterly basis using an electronic water level indicator. Groundwater levels were measured to the nearest 0.01 foot. Water level measurements were collected by LEA on the following four dates: March 10, 2009; June 4, 2009; September 9, 2009; and, December 8, 2009. Additionally, a surface water measurement of Willow Brook Pond was obtained from the risers of monitoring wells WT-MW-49 and WT-MW-50 and a staff gauge located in Lower Willow Brook Pond. Groundwater-level information was used to evaluate groundwater flow directions and horizontal hydraulic gradients in the upper portion of the unconsolidated aquifer.

Generalized groundwater contour maps from the March, June, September, and December 2009 monitoring events have been included as Figures 4-2 through 4-5, respectively. It should be noted that Willow Brook Pond had been drained for maintenance purposes prior to the December 2009 monitoring event. As such, a surface water elevation could not be obtained in December 2009 from the staff gauge in Lower Willow Brook Pond. Further, monitoring well WT-MW-19SR, located in the vicinity of the staff gauge, lacked the volume of water necessary for collection of a groundwater sample.

### 4.3 Quality Assurance and Quality Control Procedures

During the course of the 2009 post-remediation monitoring, a significant amount of information was obtained for the Project Area. This information included analytical data for groundwater samples; field measurements; sample tracking forms; and other documentation associated with sample collection and analysis. Ensuring that the data generated during the post-remediation monitoring was of sufficient quality to meet the data quality objectives (DQOs) for the project, performance and documentation of quality assurance/quality control (QA/QC) procedures for field and office activities was essential. The following DQOs were developed for the Post-Remediation Groundwater Monitoring Program for the Site:

- Samples collected are of sufficient quality and quantity to assess the groundwater conditions at the Project Area.
- Data obtained are of sufficient quality and quantity to support a regulatory compliance determination.
- Data are sufficient to determine handling and disposal requirements for purged groundwater and decontamination solutions generated during the post-remediation groundwater monitoring activities.

The various types of QA/QC procedures used to ensure that the generated during the investigation was of sufficient quality to meet the DQOs for the project included the collection and/or and analysis of trip blanks, equipment blanks, field duplicate samples, and performance evaluation (PE) samples. A detailed description of the methods employed to collect and analyze these QA/QC samples is provided in Appendix C.

All groundwater samples collected during the 2009 post-remediation groundwater sampling were analyzed using the DEP Reasonable Confidence Protocols (RCPs), which are analytical methods based on the respective EPA or other appropriate methods. The RCPs provide specific requirements for QA/QC that the laboratory must follow during analysis of environmental samples. QA/QC information provided by laboratories using the RCP methods was assessed and evaluated in accordance with the guidelines for performing Data Quality Assessments (DQAs) and Data Usability Evaluations (DUEs). The results from the DUE indicated that the data generated during the 2009 quarterly groundwater sampling events were usable for the intended purpose. A further explanation of the DQA and DUE process and a discussion of the results of the DQA and DUE are provided in Appendix C.

## 5. GROUNDWATER QUALITY

This section summarizes the results of quarterly groundwater sampling performed at the Project Area during 2009. Specifically, the following subsections summarize the reported concentrations for each constituent and provide a discussion of the results of the QA/QC measures employed for the groundwater sampling conducted at the Project Area.

### 5.1 Summary of Analytical Data

A total of 67 groundwater samples (including field duplicate samples) were collected during 2009 from Project Area monitoring wells. Four of these samples were collected and analyzed for VOCs to assess short term trends in groundwater quality as part of the ongoing groundwater/surface water interaction study described in Section 4.1. A summary of sampling and analytical information is included as Table 5-1. A summary of constituents detected in 2009 groundwater samples is included as Table 5-2. The following is a summary of the groundwater analytical results for each contaminant of concern.

**Polychlorinated Biphenyls:** A total of 63 groundwater samples collected during 2009 were analyzed for PCBs. No PCBs were detected.

**Volatile Organic Compounds:** A total of 67 groundwater samples were analyzed for VOCs during 2009. Of the 67 samples analyzed, 41 contained detectable concentrations of VOCs. The maximum concentration of each compound in micrograms per liter (µg/l) is as follows:

Benzene	6.2 µg/l
Chloroethane	5.8 µg/l
Chloromethane	6.5 µg/l
Chloroform	42.7 µg/l
1,1-Dichloroethane	42.2 µg/l
1,2-Dichloroethane	2.1 µg/l
1,1-Dichloroethylene	51.8 µg/l
cis-1,2-Dichloroethylene	195 µg/l
trans-1,2-Dichloroethylene	9.8 µg/l
Methyl Tert-Butyl Ether	2.3 µg/l
Methylene Chloride	5.8 µg/l
Tetrachloroethylene	354 µg/l
Tetrahydrofuran	58.9 µg/l



Toluene	2.5 µg/l
1,1,1-Trichloroethane	12.0 µg/l
Trichloroethylene	388 µg/l
1,1,2-Trichlorotrifluoroethane	5.8 µg/l
Vinyl Chloride	96.8 µg/l

**Total Petroleum Hydrocarbons:** A total of 63 groundwater samples collected during 2009 were analyzed for CT ETPH. Of the 63 samples analyzed, 32 samples contained detectable concentrations. The maximum concentration of CT ETPH was detected in the March 2009 sample from monitoring well WT-MW-59 at a concentration of 1.24 milligrams per liter (mg/l).

**Metals:** A total of 63 groundwater samples were collected and analyzed for unfiltered metals (arsenic, barium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, and zinc) during 2009. Of the 63 samples analyzed, 34 samples contained detectable concentrations of metals. The maximum concentration of each metal is as follows:

Arsenic	0.0116 mg/l
Barium	0.376 mg/l
Cadmium	0.0708 mg/l
Total Chromium	0.0515 mg/l
Copper	0.0692 mg/l
Nickel	1.95 mg/l
Zinc	0.0270 mg/l

## 5.2 Data Quality Assessment and Data Usability Evaluation

All data were evaluated with respect to quality by conducting a DQA and DUE in accordance with the methodology described in the November 2007 guidance document entitled, *Reasonable Confidence Protocols* and presented in more detail in the May 2009 document entitled *Laboratory Quality Assurance Quality Control, Data Quality Assessment, Data Usability Evaluation Guidance Document*. The DQA was performed to assess the quality of the analytical data in each laboratory analytical report package.

QA/QC issues identified during the DQA process included:

- Reporting of elevated detection limits for VOCs in one groundwater sample;
- Results for Laboratory Control Sample (LCS) for VOCs outside the accepted range of variability;

- Recoveries for Matrix Spike/Matrix Spike Duplicate (MS/MSD) for VOCs outside the accepted range of variability; and
- Recoveries for initial calibration curve and continuing calibration curve outside the accepted range of variability for specific VOC constituents.

The DQA worksheets are provided in Appendix C. The DQA resulted in identifying data for which the quality could affect its potential use in decision-making. After the laboratory analytical data were evaluated during the DQA, a DUE was performed. The DUE took into account the following:

- the site-specific conceptual site model (CSM);
- knowledge of the contaminant types, concentrations, and distribution;
- objectives for the data collection effort and the intended use of the data; and
- results from field QA/QC sampling.

In general, the QA/QC deficiencies identified due not pertain to any of the primary constituents of concern at the Project Area. Taking into consideration multiple lines of evidence, results from the DUE indicated that the data generated during the 2009 quarterly groundwater sampling events were usable for the intended purpose. A more detailed discussion of the DQA and DQE results is included in Appendix C.

### 5.3 Observed Trends in Groundwater

There are sufficient groundwater data at this time to document contaminant trends at particular monitoring wells, as six years of quarterly groundwater sampling has been performed. Graphs were generated for constituents in each monitoring well using data from March 2005 to present. Graphs were prepared for the following compounds: cis-1,2-dichloroethylene (cis-1,2-DCE), 1,1-dichloroethane, 1,1-dichloroethylene (1,1-DCE), tetrachloroethylene (PCE), trichloroethylene (TCE), vinyl chloride, CT ETPH and arsenic, barium, nickel and zinc in each monitoring well and are included as Appendix D. It should be noted that in the generation of constituent concentration graphs, a value of one half of the reporting limit was established for graphing in each instance where a particular constituent or compound was reported as a non-detect. Data trends for the past five years are discussed by analytical group in the paragraphs below.

**Polychlorinated Biphenyls:** PCBs have remained at non-detectable levels from March 2004 to present for all groundwater sample locations with the exception of one groundwater sample





collected from monitoring well WT-MW-44 in March 2007. As was described in the 2007 annual report, this sample was re-extracted by Accutest and the initial results were confirmed. However, the result of the analysis was questioned as groundwater in this monitoring well originates offsite from beneath residences along Risley Street. Monitoring well WT-MW-44 is located within an area that was confirmed during remediation of Willow Pond to be void of PCBs in soil. No PCBs were detected in this monitoring well during prior or subsequent groundwater sampling events. To further investigate the PCB detection, an additional co-located sample was collected at monitoring well WT-MW-44 on April 23, 2007 and was submitted concurrently to Accutest and Lancaster Laboratories of Lancaster, Pennsylvania. PCBs were not detected by either laboratory in the co-located sample. PCBs were not detected in subsequent quarterly sampling from this location in 2007, 2008 or 2009. As a result, there is a preponderance of evidence supporting a conclusion that the initial March 2007 data were not indicative of a condition that existed in the aquifer at monitoring WT-MW-44.

**Total Petroleum Hydrocarbons:** CT ETPH has been consistently detected in a majority of the wells within the Project Area from March 2004 to present in groundwater samples. The highest concentrations of CT ETPH in 2009 were detected in the March groundwater sample from monitoring well WT-MW-59. Based on an evaluation of the concentration graphs from March 2005 to present, no discernable upward or downward trends were observed for CT ETPH.

**Volatile Organic Compounds:** VOCs have been consistently detected from March 2004 to present in groundwater samples collected from monitoring wells WT-MW-19S/WT-MW-19SR, WT-MW-40, and WT-MW-50. VOCs were consistently detected from September 2006 to present in groundwater samples collected from monitoring well WT-MW-57, WT-MW-58 and WT-MW-59. VOCs are only detected in groundwater samples from monitoring well WT-MW-19S/WT-MW-19SR approximately once per year. However, the average concentrations of TCE, PCE and cis-1,2-DCE reported in monitoring well WT-MW-19S/WT-MW-19SR over the past four years have exhibited an upward trend. The concentrations of TCE and PCE appear to have decreased in WT-MW-40 since an elevated peak of these constituents was reported in March 2008. An overall decrease in concentrations of TCE, PCE and 1,1-DCE was also noted in groundwater samples from monitoring well WT-MW-50. Data from future groundwater sampling events will continue to be evaluated to determine if trends remain consistent and whether new trends emerge.

**Metals:** One or more metals have been consistently detected from March 2004 to present in groundwater samples collected from monitoring wells WT-MW-19S/WT-MW-19SR, WT-MW-40, WT-MW-48 WT-MW-49 and WT-MW-50. Metals were consistently detected from



September 2006 to present in groundwater samples collected from monitoring wells WT-MW-57, WT-MW-58, and WT-MW-59. Based on an evaluation of the graphs including data from March 2005 to present, metals previously identified in groundwater samples from monitoring well WT-MW-47 (with the exception of chromium in June 2009) and WT-MW-49 were not reported above laboratory detection limits in 2009. Groundwater samples collected from monitoring wells WT-MW-40 and WT-MW-45 previously contained arsenic. Groundwater samples from monitoring well WT-MW-40 also previously contained zinc. Metals were not detected above laboratory detection limits in groundwater samples from either monitoring well in 2009. No additional discernable upward or downward trends were observed for metals.

#### **5.4 Evaluation of Results Relative to the RSRs**

In accordance with Appendix D of the RAWP/RFV, the groundwater analytical data have been compared to the default numeric SWPC, Industrial/Commercial Volatilization Criteria (IVC) and Residential Volatilization Criteria (RVC). Also an evaluation relative to the proposed IVC and RVC listed in the *Proposed Revisions – Connecticut’s Remediation Standard Regulations - Volatilization Criteria* issued by the DEP in March 2003 was conducted for comparative purposes. Once finalized, the proposed IVC and RVC will apply to groundwater within 30 feet of the ground surface or a building. It should be noted, that historic releases occurring outside the Willow Brook and Willow Brook Pond and Willow Street North site have impacted groundwater quality. As such, the following discussions contain references to historic data as a means to provide an understanding of groundwater quality in the vicinity of Willow Brook and Willow Brook Pond prior to implementation of remediation activities.

##### **5.4.1 Surface Water Protection Criteria**

The following metals exceeded the default numeric SWPC in at least one groundwater sample collected during the 2009 quarterly monitoring events: arsenic, cadmium, copper, and nickel. A comparison of 2009 groundwater results to the default numeric SWPC is presented in Table 5-3. Arsenic exceeded the default numeric SWPC of 0.004 mg/l in groundwater samples collected during at least one of the four sampling events from monitoring wells WT-MW-19SR, WT-MW-48, WT-MW-50, and WT-MW-58, at maximum concentrations of 0.0047 mg/l, 0.0116 mg/l, 0.0116 mg/l, and 0.0057 mg/l, respectively. Copper exceeded the default numeric SWPC of 0.048 mg/l in groundwater collected from monitoring well WT-MW-19SR during the June 2009 sampling event at a concentration of 0.0692 mg/l. Cadmium and nickel exceeded the default numeric SWPC of 0.006 mg/l and 0.882 mg/l, respectively, in the groundwater samples collected from monitoring well WT-MW-59 during all four 2009 monitoring events at maximum concentrations of 0.0708 mg/l and 1.95 mg/l, respectively.

PCE was reported at a concentration of 354 µg/l in the groundwater sample collected from monitoring well WT-MW-19SR during June 2009. This concentration exceeded the default numeric SWPC of 88 µg/l. No other exceedances of the default numeric SWPC were noted for the 2009 monitoring events.

#### **5.4.2 Volatilization Criteria**

Since the existing use of the Site is industrial/commercial in nature, and the future use of the Site will most likely remain industrial/commercial, compliance with the IVC was evaluated for the Site. However, due to the proximity of residential areas to the north and to the west of the Site, compliance with the RVC was also evaluated. It should be noted that based on the site-wide groundwater elevation data, groundwater within the Project Area does not flow toward the buildings to the north of Willow Brook or the residential dwellings located west of the facility.

A summary of the comparisons of the 2009 monitoring well data against the IVC and RVC are presented on Table 5-4 and Table 5-5, respectively. Vinyl chloride exceeded IVC and RVC in groundwater samples collected in 2009 from monitoring wells WT-MW-19SR, WT-MW-40, WT-MW-50, and WT-MW-59 at maximum concentrations of 45.2 µg/l, 96.8 µg/l, 19.8 µg/l, and 32.0 µg/l, respectively. The concentration of 1,1-DCE exceeded the IVC of 6 µg/l and the RVC of 1 µg/l in the groundwater sample collected from monitoring well WT-MW-19SR in June 2009 at a concentration of 9.1 µg/l. The concentrations of 1,1-DCE also exceeded the IVC and RVC in groundwater collected from monitoring well WT-MW-40 during the June, September, October and November monitoring events at a maximum concentration of 28.2 µg/l; and in the groundwater samples collected from monitoring well WT-MW-50 in each of the four quarterly monitoring events at a maximum concentration of 51.8 µg/l. In addition, 1,1-DCE was detected in the groundwater sample from monitoring well WT-MW-40 at a concentration of 4.1 µg/l during the March 2009 sampling event. This concentration exceeded the RVC but is less than the IVC.

The TCE concentration of 388 µg/l reported in the groundwater sample from monitoring well WT-MW-19SR in June 2009 exceeds the RVC of 219 µg/l. TCE was detected at a concentration that exceeded the RVC in sample from monitoring well WT-MW-50 during the March and June 2009 monitoring events. The maximum concentration of TCE detected in this well during 2009 was 322 µg/l.

An evaluation relative to the proposed IVC and RVC listed in the *Proposed Revisions – Connecticut’s Remediation Standard Regulations - Volatilization Criteria* issued by the DEP in



March 2003 was also conducted for comparative purposes. Once finalized, the proposed IVC and RVC will apply to groundwater within 30 feet of the ground surface or a building. It should be noted, however, that the criteria are currently under review by the DEP and therefore may change. As shown in Tables 5-6 and 5-7, exceedances of the proposed RVC and IVC were detected for TCE, PCE and chloroform in a number of groundwater samples.

Historic groundwater analytical data for upgradient monitoring wells located south of Upper and Lower Willow Brook Pond and the stream channel west of Willow Brook Pond have exhibited concentrations of VOCs in excess of the concentrations discussed above. As a result, it has been concluded that the levels of VOCs detected during quarterly monitoring events are not attributable to contamination that was remediated as part of the Willow Brook and Willow Brook Pond and the Willow Street North remediation projects.

### **5.4.3 Compliance Determination**

There are sufficient groundwater data at this time to make a compliance determination relative to the RSRs. However, as required by the regulations, additional rounds of quarterly groundwater monitoring are necessary to further substantiate the presence or absence of constituent trends at particular monitoring wells. The absence of detectable concentrations of PCBs in groundwater indicate that the remediation activities performed to date have been effective in eliminating PCBs as a groundwater contaminant source. Additional groundwater data will be collected in accordance with the DEP approved RAWP/RV to further substantiate this assessment.



## **6. ENGINEERED CONTROL MAINTENANCE & MONITORING**

The post-remediation maintenance program for the engineered control was developed to ensure that the structural integrity, design permeability, and effectiveness of the engineered control will be maintained. This maintenance program was developed to:

- Periodically inspect the engineered control;
- Identify measures to be taken to prevent run-on and run-off of stormwater from eroding or otherwise damaging the engineered control; and
- Identify measures to be taken to correct the effects of any settling, subsidence, erosion or other damaging events or conditions.

The engineered control and the area surrounding the engineered control were inspected in March and September 2009 in the following areas:

1. Signs of erosion.
2. Signs of settling.
3. Loss of vegetative cover.
4. Undesirable growth.
5. Signs of ponding and run on.
6. Condition of fencing and gates.
7. Condition of rip-rap in Willow Brook stream channel.
8. Condition of stone layer in Willow Brook.
9. Burrowing animals.
10. Monitoring well network.

An additional inspection was conducted on July 23, 2009 after a rain event totaling greater than two inches of rain occurred. The Post-Remediation Maintenance Monitoring Forms are included in Appendix E.



## **6.1 Summary of Maintenance & Monitoring Activities**

The following section summarizes the maintenance issues and corrective actions that were implemented with respect to the engineered control during 2009.

- March 2009 inspection – At the time of the March 2009 inspection beavers had constructed a dam across Willow Brook, approximately 450 feet downstream of the manmade dam located on the lower pond. During the inspection, it was noted that the top of the southern embankment of Willow Pond located next to the paved parking lot had been eroded. LEA replaced the rip-rap that had been eroded along this embankment on March 30, 2009.
- July 2009 Inspection – An area of erosion was observed along the southern bank of Willow Brook, just west of the man-made dam and several smaller areas of erosion were identified along the southern bank of Upper Willow Brook Pond. The timbers comprising the retaining wall on the eastern side of the man-made dam are rotted and the bank behind the wall has been partially washed away. Clusters of trees measuring approximately 0.5 to 2 inches in diameter have taken root above the cap in the rip rap located around the perimeter of Upper Willow Brook Pond and the eastern perimeter of Lower Willow Brook Pond. The beaver dam was still present during the July 2009 inspection.
- September 2009 Inspection – No significant changes in the condition of the cap were noted since the inspection that was conducted on July 23, 2009.

## **6.2 Corrective Action**

Pratt & Whitney is in the process of developing and implementing a plan to address each of the maintenance issues identified by LEA. The beavers were removed from the project area in November 2009. Removal of the beaver dam and clearing of trees from the rip-rap is expected to be completed in 2010.

## 7. CONCLUSIONS

A total of four monitoring events were performed in 2009 in accordance with Appendix D of the DEP approved RAWP/RFV for Willow Brook and Willow Brook Pond and Appendix C of the DEP approved RAWP/RFV for Willow Street North. No PCBs were detected in any of the groundwater samples collected and analyzed in 2009. Other constituents not believed to be related to either the Willow Brook and Willow Brook Pond Project or the Willow Street North Project were detected at levels consistent with background water quality data for the Site. VOCs, CT ETPH and metals were detected in the groundwater samples analyzed during the 2009 quarterly monitoring events. The concentrations of PCE, arsenic, cadmium, copper and nickel, exceeded the default numeric SWPC. Additionally, the current IVC and/or RVC was exceeded in several groundwater samples for vinyl chloride, 1,1-DCE and TCE. These observations are in general consistent with historic data.

There are sufficient groundwater data at this time to determine trends or to make a compliance determination relative to the RSRs. As required by the regulations, additional rounds of quarterly groundwater monitoring are necessary in order to further substantiate the presence or absence of trends in constituent concentrations at particular monitoring wells at the site. The absence of detectable concentrations of PCBs in groundwater indicates that the remediation activities performed to date have been effective in eliminating PCBs as a groundwater contaminant source. Additionally, concentrations for inorganic constituents and VOCs detected in groundwater are consistent with historic data from locations upgradient of Willow Brook and Willow Brook Pond.

Two maintenance monitoring inspections were conducted in 2009 following the March and September quarterly monitoring events, with one additional event performed in July after a significant rainfall. Corrective action has been and will continue to be performed for the items identified. Additional inspections and corrective action measures, if necessary, will continue to be implemented as part of the maintenance and monitoring program.



## TABLES



Table 5-1

## SUMMARY OF SAMPLING AND ANALYTICAL INFORMATION


**Pratt & Whitney, East Hartford, Connecticut: Willow Brook & Willow Brook Pond 2009 Annual  
Groundwater Monitoring Report**

Loureiro Engineering Associates, Inc.

Sample Information					Analysis Information							
Location ID	Sample ID	Sample Date	Sampled Interval (ft)	Sample Class	LEAAAnalyt. Lab.	Volatile Organics	Semivolatile Organics	Herbicides	Pesticides/PCBs	Fuels/Oils	Metals	Miscellaneous Analyses
WT-MW-19SR	1117657	03/11/2009	3.00 - 12.50	GWS		x			x	X	X	
WT-MW-19SR	1123437	06/05/2009	3.00 - 12.50	GWS		X			x	X	X	
WT-MW-19SR	1130890	09/11/2009	3.00 - 12.50	GWS		X			x	X	X	
WT-MW-19SR	1134551	10/28/2009	3.00 - 12.50	GWS		x					x	
WT-MW-19SR	1135166	11/23/2009	3.00 - 12.50	GWS		X					x	
WT-MW-40	1117656	03/11/2009	10.00 - 19.00	GWS		X			x	X	X	
WT-MW-40	1123436	06/05/2009	10.00 - 19.00	GWS		X			x	X	X	
WT-MW-40	1130897	09/11/2009	10.00 - 19.00	GWS		X			x	X	X	
WT-MW-40	1134565	10/30/2009	10.00 - 19.00	GWS		X					x	
WT-MW-40	1135172	11/23/2009	10.00 - 19.00	GWS		X					x	
WT-MW-40	1136012	12/08/2009	10.00 - 19.00	GWS		X			x	X	X	
WT-MW-41	1117643	03/10/2009	1.00 - 10.00	GWS		x			x	x	X	
WT-MW-41	1123434	06/05/2009	1.00 - 10.00	GWS		x			x	x	X	
WT-MW-41	1130878	09/10/2009	1.00 - 10.00	GWS		X			x	X	x	
WT-MW-41	1136009	12/08/2009	1.00 - 10.00	GWS		x			x	x	x	
WT-MW-42	1117645	03/10/2009	1.00 - 10.00	GWS		x			x	x	X	
WT-MW-42	1123435	06/05/2009	1.00 - 10.00	GWS		X			x	x	x	
WT-MW-42	1130885	09/10/2009	1.00 - 10.00	GWS		x			x	x	x	
WT-MW-42	1136008	12/08/2009	1.00 - 10.00	GWS		x			x	x	x	
WT-MW-43	1117644	03/10/2009	3.00 - 12.00	GWS		x			x	x	x	
WT-MW-43	1123440	06/05/2009	3.00 - 12.00	GWS		X			x	x	x	
WT-MW-43	1130886	09/10/2009	3.00 - 12.00	GWS		X			x	x	x	
WT-MW-43	1136007	12/08/2009	3.00 - 12.00	GWS		x			x	x	x	
WT-MW-44	1117646	03/10/2009	5.00 - 14.00	GWS		x			x	x	x	
WT-MW-44	1123441	06/05/2009	5.00 - 14.00	GWS		x			x	x	x	
WT-MW-44	1130881	09/10/2009	5.00 - 14.00	GWS		x			x	x	x	
WT-MW-44	1136011	12/08/2009	5.00 - 14.00	GWS		X			x	x	x	
WT-MW-45	1117650	03/10/2009	2.50 - 11.50	GWS		X			x	X	x	
WT-MW-45	1123426	06/04/2009	2.50 - 11.50	GWS		x			x	X	x	
WT-MW-45	1130888	09/10/2009	2.50 - 11.50	GWS		x			x	X	x	
WT-MW-45	1136014	12/08/2009	2.50 - 11.50	GWS		x			x	X	x	
WT-MW-46	1117648	03/10/2009	-1.50 - 7.50	GWS		X			x	x	x	

Legend: x - mass, t - TCLP, s - SPLP, e - EPTOX, z - ZHE, d - Thermal Desorption, r - Charcoal Tube, a - SEM/AVS, m - Methanol, nr - not received; Capitalized - at least one analyte in class detected

Page 1 of 3

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Table 5-1

## SUMMARY OF SAMPLING AND ANALYTICAL INFORMATION


**Pratt & Whitney, East Hartford, Connecticut: Willow Brook & Willow Brook Pond 2009 Annual  
Groundwater Monitoring Report**

Loureiro Engineering Associates, Inc.

Sample Information					Analysis Information							
Location ID	Sample ID	Sample Date	Sampled Interval (ft)	Sample Class	LEAAAnalyt. Lab.	Volatile Organics	Semivolatile Organics	Herbicides	Pesticides/PCBs	Fuels/Oils	Metals	Miscellaneous Analyses
WT-MW-46	1123430	06/04/2009	-1.50 - 7.50	GWS		X			x	x	x	
WT-MW-46	1130882	09/10/2009	-1.50 - 7.50	GWS		X			x	x	x	
WT-MW-46	1136019	12/09/2009	-1.50 - 7.50	GWS		x			x	x	x	
WT-MW-47	1117651	03/10/2009	6.00 - 15.00	GWS		x			x	x	x	
WT-MW-47	1123429	06/04/2009	6.00 - 15.00	GWS		x			x	x	X	
WT-MW-47	1130879	09/09/2009	6.00 - 15.00	GWS		x			x	X	x	
WT-MW-47	1136017	12/08/2009	6.00 - 15.00	GWS		x			x	x	x	
WT-MW-48	1117649	03/10/2009		GWS		X			x	X	X	
WT-MW-48	1123432	06/04/2009		GWS		X			x	X	X	
WT-MW-48	1130883	09/10/2009		GWS		X			x	X	X	
WT-MW-48	1136016	12/08/2009		GWS		x			x	x	X	
WT-MW-49	1117647	03/10/2009		GWS		x			x	x	x	
WT-MW-49	1123431	06/04/2009		GWS		x			x	x	x	
WT-MW-49	1130887	09/10/2009		GWS		x			x	x	x	
WT-MW-49	1136015	12/08/2009		GWS		x			x	x	x	
WT-MW-50	1117655	03/11/2009	16.00 - 26.00	GWS		X			x	X	X	
WT-MW-50	1117661	03/11/2009	16.00 - 26.00	GWS		X			x	X	X	
WT-MW-50	1123438	06/05/2009	16.00 - 26.00	GWS		X			x	X	X	
WT-MW-50	1123439	06/05/2009	16.00 - 26.00	GWS		X			x	X	X	
WT-MW-50	1130895	09/11/2009	16.00 - 26.00	GWS		X			x	X	X	
WT-MW-50	1130896	09/11/2009	16.00 - 26.00	GWS		X			x	X	X	
WT-MW-50	1136013	12/08/2009	16.00 - 26.00	GWS		X			x	X	X	
WT-MW-50	1136028	12/08/2009	16.00 - 26.00	GWS		X			x	X	X	
WT-MW-57	1117652	03/11/2009	8.00 - 18.00	GWS		X			x	X	X	
WT-MW-57	1123433	06/04/2009	8.00 - 18.00	GWS		X			x	x	X	
WT-MW-57	1130880	09/09/2009	8.00 - 18.00	GWS		X			x	X	X	
WT-MW-57	1136010	12/08/2009	8.00 - 18.00	GWS		X			x	x	X	
WT-MW-58	1117653	03/11/2009	8.00 - 18.00	GWS		X			x	X	X	
WT-MW-58	1123428	06/04/2009	8.00 - 18.00	GWS		X			x	x	X	
WT-MW-58	1130892	09/11/2009	8.00 - 18.00	GWS		X			x	X	X	
WT-MW-58	1136020	12/09/2009	8.00 - 18.00	GWS		X			x	x	x	
WT-MW-59	1117654	03/11/2009	8.00 - 18.00	GWS		X			x	X	X	

Legend: x - mass, t - TCLP, s - SPLP, e - EPTOX, z - ZHE, d - Thermal Desorption, r - Charcoal Tube, a - SEM/AVS, m - Methanol, nr - not received; Capitalized - at least one analyte in class detected

Printed on 12/28/2009

Page 2 of 3

## SUMMARY OF SAMPLING AND ANALYTICAL INFORMATION

# Pratt & Whitney, East Hartford, Connecticut: Willow Brook & Willow Brook Pond 2009 Annual Groundwater Monitoring Report



Loureiro Engineering Associates, Inc.

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Table 5-2

## SUMMARY OF ANALYTICAL RESULTS (DETECTS)


**Pratt & Whitney, East Hartford, Connecticut: Willow Brook & Willow Brook Pond 2009 Annual  
Groundwater Monitoring Report**

Loureiro Engineering Associates, Inc.

	Location ID	WT-MW-19SR	WT-MW-19SR	WT-MW-19SR	WT-MW-19SR	WT-MW-19SR	WT-MW-19SR	WT-MW-19SR
	Sample ID	1117657	1117657	1123437	1123437	1130890	1130890	1135166
	Sample Date	03/11/2009	03/11/2009	06/05/2009	06/05/2009	09/11/2009	09/11/2009	11/23/2009
	Sample Time	14:10	14:10	14:20	14:20	10:25	10:25	10:00
	Sample Depth	3.00' - 12.50	3.00' - 12.50	3.00' - 12.50	3.00' - 12.50	3.00' - 12.50	3.00' - 12.50	3.00' - 12.50
	Laboratory	ACTM	ACTM	ACTM	ACTM	ACTM	ACTM	ACTM
	Lab. Number	M81204-5	M81204-6	M83394-5	M83394-6	M85761-3	M85761-4	M87560-4
Constituent	Units							
Date Metals Analyzed	-		03/13/2009		06/11/2009		09/16/2009	
Date Organics Analyzed	-			06/12/2009		09/18/2009		12/04/2009
Date Physical Analyzed	-	03/17/2009		06/18/2009		09/23/2009		
Arsenic	mg/L							
Arsenic (unfiltered)	mg/L				0.0042		0.0047	
Barium (unfiltered)	mg/L							
Cadmium (unfiltered)	mg/L							
Chromium, Total (unfiltered)	mg/L							
Copper (unfiltered)	mg/L				0.0692			
Nickel (unfiltered)	mg/L				0.365			
Zinc (unfiltered)	mg/L		0.0221					
Total Petroleum Hydrocarbons (CT ETPH)	mg/L	0.131		0.452		0.126		
Benzene	ug/L			6.2				
1,1,1-Trichloroethane	ug/L			6.2				
1,1,2-Trichlorotrifluoroethane	ug/L							
1,1-Dichloroethane	ug/L			17.2				
1,2-Dichloroethane	ug/L							
Chloroethane	ug/L							
Methyl tert-Butyl ether	ug/L							
1,1-Dichloroethylene	ug/L			9.1				
trans-1,2-Dichloroethylene	ug/L							
cis-1,2-Dichloroethylene	ug/L			141		1.0		2.5
Vinyl Chloride	ug/L			45.2				
Tetrachloroethylene	ug/L			354				29.9
Trichloroethylene	ug/L			388				34.1
Tetrahydrofuran	ug/L							
Chloromethane	ug/L							
Methylene Chloride	ug/L			5.8				



## Pratt & Whitney, East Hartford, Connecticut: Willow Brook & Willow Brook Pond 2009 Annual Groundwater Monitoring Report

Loureiro Engineering Associates, Inc.

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Table 5-2

## SUMMARY OF ANALYTICAL RESULTS (DETECTS)


**Pratt & Whitney, East Hartford, Connecticut: Willow Brook & Willow Brook Pond 2009 Annual  
Groundwater Monitoring Report**

Loureiro Engineering Associates, Inc.

	Location ID	WT-MW-40	WT-MW-40	WT-MW-40	WT-MW-40	WT-MW-40	WT-MW-40	WT-MW-40
	Sample ID	1117656	1117656	1123436	1123436	1130897	1130897	1134565
	Sample Date	03/11/2009	03/11/2009	06/05/2009	06/05/2009	09/11/2009	09/11/2009	10/30/2009
	Sample Time	12:30	12:30	12:15	12:15	13:21	13:21	10:20
	Sample Depth	10.00' - 19.0	10.00' - 19.0	10.00' - 19.0	10.00' - 19.0	10.00' - 19.0	10.00' - 19.0	10.00' - 19.0
	Laboratory	ACTM	ACTM	ACTM	ACTM	ACTM	ACTM	ACTM
	Lab. Number	M81204-3	M81204-4	M83394-3	M83394-4	M85761-5	M85761-6	M86954-1
Constituent	Units							
Date Metals Analyzed	-		03/13/2009		06/11/2009		09/16/2009	
Date Organics Analyzed	-	03/18/2009		06/12/2009		09/18/2009		11/12/2009
Date Physical Analyzed	-	03/17/2009		06/18/2009		09/23/2009		
Arsenic	mg/L							
Arsenic (unfiltered)	mg/L							
Barium (unfiltered)	mg/L		0.302		0.333		0.344	
Cadmium (unfiltered)	mg/L							
Chromium, Total (unfiltered)	mg/L							
Copper (unfiltered)	mg/L							
Nickel (unfiltered)	mg/L							
Zinc (unfiltered)	mg/L							
Total Petroleum Hydrocarbons (CT ETPH)	mg/L	0.0881		0.134		0.118		
Benzene	ug/L							
1,1,1-Trichloroethane	ug/L	1.2						1.4
1,1,2-Trichlorotrifluoroethane	ug/L							
1,1-Dichloroethane	ug/L	24.2		32.2		31.4		42.2
1,2-Dichloroethane	ug/L					1.3		
Chloroethane	ug/L							
Methyl tert-Butyl ether	ug/L							
1,1-Dichloroethylene	ug/L	4.6		7.3		22.0		28.2
trans-1,2-Dichloroethylene	ug/L	1.5		3.3		6.3		9.8
cis-1,2-Dichloroethylene	ug/L	25.3		62.0		99.4		195
Vinyl Chloride	ug/L	30.5		81.1		75.7		90.6
Tetrachloroethylene	ug/L							
Trichloroethylene	ug/L	2.3				10.7		14.0
Tetrahydrofuran	ug/L							
Chloromethane	ug/L							
Methylene Chloride	ug/L							

## SUMMARY OF ANALYTICAL RESULTS (DETECTS)

[illegible]

Table 5-2

## SUMMARY OF ANALYTICAL RESULTS (DETECTS)


**Pratt & Whitney, East Hartford, Connecticut: Willow Brook & Willow Brook Pond 2009 Annual  
Groundwater Monitoring Report**

Loureiro Engineering Associates, Inc.

	Location ID	WT-MW-40	WT-MW-40	WT-MW-40	WT-MW-41	WT-MW-41	WT-MW-41	WT-MW-42
	Sample ID	1135172	1136012	1136012	1117643	1123434	1130878	1117645
	Sample Date	11/23/2009	12/08/2009	12/08/2009	03/10/2009	06/05/2009	09/10/2009	03/10/2009
	Sample Time	13:40	13:10	13:10	14:45	11:05	09:30	12:45
	Sample Depth	10.00' - 19.0	10.00' - 19.0	10.00' - 19.0	1.00' - 10.00	1.00' - 10.00	1.00' - 10.00	1.00' - 10.00
	Laboratory	ACTM	ACTM	ACTM	ACTM	ACTM	ACTM	ACTM
	Lab. Number	M87560-17	M87915-10	M87915-9	M81183-2	M83394-8	M85739-1	M81183-6
Constituent	Units							
Date Metals Analyzed	-		12/14/2009		03/12/2009	06/11/2009		03/12/2009
Date Organics Analyzed	-	12/05/2009		12/15/2009			09/16/2009	
Date Physical Analyzed	-			12/19/2009			09/17/2009	
Arsenic	mg/L							
Arsenic (unfiltered)	mg/L							
Barium (unfiltered)	mg/L		0.271			0.234		
Cadmium (unfiltered)	mg/L							
Chromium, Total (unfiltered)	mg/L							
Copper (unfiltered)	mg/L							
Nickel (unfiltered)	mg/L							
Zinc (unfiltered)	mg/L				0.0258			0.0203
Total Petroleum Hydrocarbons (CT ETPH)	mg/L			0.120			0.106	
Benzene	ug/L						2.1	
1,1,1-Trichloroethane	ug/L							
1,1,2-Trichlorotrifluoroethane	ug/L							
1,1-Dichloroethane	ug/L	40.2		23.4				
1,2-Dichloroethane	ug/L	1.7		1.5				
Chloroethane	ug/L							
Methyl tert-Butyl ether	ug/L							
1,1-Dichloroethylene	ug/L	14.3		4.1				
trans-1,2-Dichloroethylene	ug/L	6.4		4.1				
cis-1,2-Dichloroethylene	ug/L	140		60.3				
Vinyl Chloride	ug/L	96.8		60.5				
Tetrachloroethylene	ug/L							
Trichloroethylene	ug/L	2.1						
Tetrahydrofuran	ug/L							
Chloromethane	ug/L							
Methylene Chloride	ug/L							





# Pratt & Whitney, East Hartford, Connecticut: Willow Brook & Willow Brook Pond 2009 Annual Groundwater Monitoring Report

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Table 5-2

## SUMMARY OF ANALYTICAL RESULTS (DETECTS)



**Pratt & Whitney, East Hartford, Connecticut: Willow Brook & Willow Brook Pond 2009 Annual  
Groundwater Monitoring Report**

Loureiro Engineering Associates, Inc.

	Location ID	WT-MW-42	WT-MW-43	WT-MW-43	WT-MW-44	WT-MW-45	WT-MW-45	WT-MW-45
	Sample ID	1123435	1123440	1130886	1136011	1117650	1123426	1130888
	Sample Date	06/05/2009	06/05/2009	09/10/2009	12/08/2009	03/10/2009	06/04/2009	09/10/2009
	Sample Time	13:10	13:00	10:56	11:00	12:35	12:50	15:14
	Sample Depth	1.00' - 10.00	3.00' - 12.00	3.00' - 12.00	5.00' - 14.00	2.50' - 11.50	2.50' - 11.50	2.50' - 11.50
	Laboratory	ACTM	ACTM	ACTM	ACTM	ACTM	ACTM	ACTM
	Lab. Number	M83394-9	M83394-20	M85739-11	M87915-7	M81183-9	M83376-12	M85739-15
Constituent	Units							
Date Metals Analyzed	-							
Date Organics Analyzed	-	06/12/2009	06/12/2009	09/16/2009	12/15/2009	03/19/2009		
Date Physical Analyzed	-					03/17/2009	06/17/2009	09/17/2009
Arsenic	mg/L							
Arsenic (unfiltered)	mg/L							
Barium (unfiltered)	mg/L							
Cadmium (unfiltered)	mg/L							
Chromium, Total (unfiltered)	mg/L							
Copper (unfiltered)	mg/L							
Nickel (unfiltered)	mg/L							
Zinc (unfiltered)	mg/L							
Total Petroleum Hydrocarbons (CT ETPH)	mg/L					0.824	0.570	0.548
Benzene	ug/L							
1,1,1-Trichloroethane	ug/L							
1,1,2-Trichlorotrifluoroethane	ug/L							
1,1-Dichloroethane	ug/L							
1,2-Dichloroethane	ug/L							
Chloroethane	ug/L							
Methyl tert-Butyl ether	ug/L							
1,1-Dichloroethylene	ug/L							
trans-1,2-Dichloroethylene	ug/L							
cis-1,2-Dichloroethylene	ug/L			1.7				
Vinyl Chloride	ug/L					1.1		
Tetrachloroethylene	ug/L							
Trichloroethylene	ug/L							
Tetrahydrofuran	ug/L							
Chloromethane	ug/L	6.5	6.4					
Methylene Chloride	ug/L							



## Pratt & Whitney, East Hartford, Connecticut: Willow Brook & Willow Brook Pond 2009 Annual Groundwater Monitoring Report

Loureiro Engineering Associates, Inc.

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Table 5-2

## SUMMARY OF ANALYTICAL RESULTS (DETECTS)



**Pratt & Whitney, East Hartford, Connecticut: Willow Brook & Willow Brook Pond 2009 Annual  
Groundwater Monitoring Report**

Loureiro Engineering Associates, Inc.

	Location ID	WT-MW-45	WT-MW-46	WT-MW-46	WT-MW-46	WT-MW-47	WT-MW-47	WT-MW-48
	Sample ID	1136014	1117648	1123430	1130882	1123429	1130879	1117649
	Sample Date	12/08/2009	03/10/2009	06/04/2009	09/10/2009	06/04/2009	09/09/2009	03/10/2009
	Sample Time	15:20	14:25	12:30	13:05	10:35	13:19	10:35
	Sample Depth	2.50' - 11.50	-1.50' - 7.50	-1.50' - 7.50	-1.50' - 7.50	6.00' - 15.00	6.00' - 15.00	
	Laboratory	ACTM	ACTM	ACTM	ACTM	ACTM	ACTM	ACTM
	Lab. Number	M87915-5	M81183-20	M83376-8	M85739-5	M83376-7	M85689-3	M81183-7
Constituent	Units							
Date Metals Analyzed	-					06/11/2009		
Date Organics Analyzed	-		03/20/2009	06/09/2009	09/16/2009			03/19/2009
Date Physical Analyzed	-	12/19/2009					09/17/2009	03/17/2009
Arsenic	mg/L							
Arsenic (unfiltered)	mg/L							
Barium (unfiltered)	mg/L							
Cadmium (unfiltered)	mg/L							
Chromium, Total (unfiltered)	mg/L					0.0515		
Copper (unfiltered)	mg/L							
Nickel (unfiltered)	mg/L							
Zinc (unfiltered)	mg/L							
Total Petroleum Hydrocarbons (CT ETPH)	mg/L	0.296					0.107	0.226
Benzene	ug/L							
1,1,1-Trichloroethane	ug/L							
1,1,2-Trichlorotrifluoroethane	ug/L							
1,1-Dichloroethane	ug/L							
1,2-Dichloroethane	ug/L							
Chloroethane	ug/L							
Methyl tert-Butyl ether	ug/L							2.3
1,1-Dichloroethylene	ug/L							
trans-1,2-Dichloroethylene	ug/L							
cis-1,2-Dichloroethylene	ug/L							
Vinyl Chloride	ug/L							
Tetrachloroethylene	ug/L							
Trichloroethylene	ug/L							
Tetrahydrofuran	ug/L							
Chloromethane	ug/L							
Methylene Chloride	ug/L							



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Table 5-2

## SUMMARY OF ANALYTICAL RESULTS (DETECTS)


**Pratt & Whitney, East Hartford, Connecticut: Willow Brook & Willow Brook Pond 2009 Annual  
Groundwater Monitoring Report**

Loureiro Engineering Associates, Inc.

	Location ID	WT-MW-48	WT-MW-48	WT-MW-48	WT-MW-48	WT-MW-48	WT-MW-48	WT-MW-48
	Sample ID	1117649	1123432	1123432	1123432	1130883	1130883	1136016
	Sample Date	03/10/2009	06/04/2009	06/04/2009	06/04/2009	09/10/2009	09/10/2009	12/08/2009
	Sample Time	10:35	12:00	12:00	12:00	14:45	14:45	15:05
	Sample Depth							
	Laboratory	ACTM	ACTM	ACTM	ACTM	ACTM	ACTM	ACTM
	Lab. Number	M81183-8	M83376-1	M83376-1R	M83376-2	M85739-7	M85739-8	M87915-23
Constituent	Units							
Date Metals Analyzed	-	03/12/2009		06/25/2009	06/11/2009		09/16/2009	12/14/2009
Date Organics Analyzed	-		06/09/2009			09/16/2009		
Date Physical Analyzed	-		06/17/2009			09/17/2009		
Arsenic	mg/L			0.0089				
Arsenic (unfiltered)	mg/L	0.0047			0.0108		0.0116	0.0101
Barium (unfiltered)	mg/L							
Cadmium (unfiltered)	mg/L							
Chromium, Total (unfiltered)	mg/L	0.0107						
Copper (unfiltered)	mg/L							
Nickel (unfiltered)	mg/L							
Zinc (unfiltered)	mg/L							
Total Petroleum Hydrocarbons (CT ETPH)	mg/L		0.132			0.222		
Benzene	ug/L							
1,1,1-Trichloroethane	ug/L							
1,1,2-Trichlorotrifluoroethane	ug/L							
1,1-Dichloroethane	ug/L							
1,2-Dichloroethane	ug/L							
Chloroethane	ug/L							
Methyl tert-Butyl ether	ug/L		1.5			1.2		
1,1-Dichloroethylene	ug/L							
trans-1,2-Dichloroethylene	ug/L							
cis-1,2-Dichloroethylene	ug/L							
Vinyl Chloride	ug/L							
Tetrachloroethylene	ug/L							
Trichloroethylene	ug/L							
Tetrahydrofuran	ug/L							
Chloromethane	ug/L							
Methylene Chloride	ug/L							



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Table 5-2

## SUMMARY OF ANALYTICAL RESULTS (DETECTS)


**Pratt & Whitney, East Hartford, Connecticut: Willow Brook & Willow Brook Pond 2009 Annual  
Groundwater Monitoring Report**

Loureiro Engineering Associates, Inc.

	Location ID	WT-MW-50	WT-MW-50	WT-MW-50	WT-MW-50	WT-MW-50	WT-MW-50	WT-MW-50
	Sample ID	1117655	1117655	1117661	1117661	1123438	1123438	1123439
	Sample Date	03/11/2009	03/11/2009	03/11/2009	03/11/2009	06/05/2009	06/05/2009	06/05/2009
	Sample Time	10:05	10:05	10:05	10:05	10:25	10:25	10:25
	Sample Depth	16.00' - 26.0	16.00' - 26.0	16.00' - 26.0	16.00' - 26.0	16.00' - 26.0	16.00' - 26.0	16.00' - 26.0
	Laboratory	ACTM	ACTM	ACTM	ACTM	ACTM	ACTM	ACTM
	Lab. Number	M81204-1	M81204-2	M81204-7	M81204-8	M83394-16	M83394-17	M83394-18
Constituent	Units							
Date Metals Analyzed	-		03/13/2009		03/13/2009		06/11/2009	
Date Organics Analyzed	-	03/18/2009		03/18/2009		06/12/2009		06/12/2009
Date Physical Analyzed	-	03/17/2009		03/17/2009		06/18/2009		06/18/2009
Arsenic	mg/L							
Arsenic (unfiltered)	mg/L		0.0095		0.0076		0.0114	
Barium (unfiltered)	mg/L		0.289		0.291		0.304	
Cadmium (unfiltered)	mg/L							
Chromium, Total (unfiltered)	mg/L							
Copper (unfiltered)	mg/L							
Nickel (unfiltered)	mg/L		0.0481		0.0485		0.0484	
Zinc (unfiltered)	mg/L		0.0270		0.0250			
Total Petroleum Hydrocarbons (CT ETPH)	mg/L	0.198		0.175		0.290		0.286
Benzene	ug/L					0.56		0.50
1,1,1-Trichloroethane	ug/L	2.4		2.5		4.3		4.4
1,1,2-Trichlorotrifluoroethane	ug/L							
1,1-Dichloroethane	ug/L	3.6		3.7		5.0		5.4
1,2-Dichloroethane	ug/L	2.0						
Chloroethane	ug/L							
Methyl tert-Butyl ether	ug/L							
1,1-Dichloroethylene	ug/L	35.1		36.3		49.0		51.8
trans-1,2-Dichloroethylene	ug/L	1.0		1.1				
cis-1,2-Dichloroethylene	ug/L	39.7		40.0		59.7		63.2
Vinyl Chloride	ug/L	14.7		15.3		18.4		19.1
Tetrachloroethylene	ug/L	33.2		32.6		37.3		40.9
Trichloroethylene	ug/L	305		306		296		322
Tetrahydrofuran	ug/L	16.5		16.9		24.1		24.3
Chloromethane	ug/L							
Methylene Chloride	ug/L							





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Table 5-2

## SUMMARY OF ANALYTICAL RESULTS (DETECTS)


**Pratt & Whitney, East Hartford, Connecticut: Willow Brook & Willow Brook Pond 2009 Annual  
Groundwater Monitoring Report**

Loureiro Engineering Associates, Inc.

	Location ID	WT-MW-50	WT-MW-50	WT-MW-50	WT-MW-50	WT-MW-50	WT-MW-50	WT-MW-50
	Sample ID	1123439	1130895	1130895	1130896	1130896	1136013	1136013
	Sample Date	06/05/2009	09/11/2009	09/11/2009	09/11/2009	09/11/2009	12/08/2009	12/08/2009
	Sample Time	10:25	10:29	10:29	10:29	10:29	12:55	12:55
	Sample Depth	16.00' - 26.0	16.00' - 26.0	16.00' - 26.0	16.00' - 26.0	16.00' - 26.0	16.00' - 26.0	16.00' - 26.0
	Laboratory	ACTM	ACTM	ACTM	ACTM	ACTM	ACTM	ACTM
	Lab. Number	M83394-19	M85761-16	M85761-7	M85761-17	M85761-18	M87915-1	M87915-2
Constituent	Units							
Date Metals Analyzed	-	06/11/2009	09/16/2009			09/16/2009		12/14/2009
Date Organics Analyzed	-			09/18/2009	09/19/2009		12/15/2009	
Date Physical Analyzed	-			09/23/2009	09/23/2009		12/19/2009	
Arsenic	mg/L							
Arsenic (unfiltered)	mg/L	0.0105	0.0101			0.0116		0.0066
Barium (unfiltered)	mg/L	0.3	0.309			0.343		0.351
Cadmium (unfiltered)	mg/L							
Chromium, Total (unfiltered)	mg/L							
Copper (unfiltered)	mg/L							
Nickel (unfiltered)	mg/L	0.0468	0.0540			0.0548		0.0894
Zinc (unfiltered)	mg/L							
Total Petroleum Hydrocarbons (CT ETPH)	mg/L			0.202	0.219		0.268	
Benzene	ug/L			0.54			0.56	
1,1,1-Trichloroethane	ug/L			7.2	12.0		3.2	
1,1,2-Trichlorotrifluoroethane	ug/L							
1,1-Dichloroethane	ug/L			7.3			3.5	
1,2-Dichloroethane	ug/L			2.1			1.2	
Chloroethane	ug/L						4.3	
Methyl tert-Butyl ether	ug/L							
1,1-Dichloroethylene	ug/L			32.2	35.5		10	
trans-1,2-Dichloroethylene	ug/L			1.9				
cis-1,2-Dichloroethylene	ug/L			38.4	48.7		10.7	
Vinyl Chloride	ug/L			19.8	17.2		3.1	
Tetrachloroethylene	ug/L			22.3	19.6		7.6	
Trichloroethylene	ug/L			162	194		63.3	
Tetrahydrofuran	ug/L			58.9			18.4	
Chloromethane	ug/L							
Methylene Chloride	ug/L							

## SUMMARY OF ANALYTICAL RESULTS (DETECTS)

# Pratt & Whitney, East Hartford, Connecticut: Willow Brook & Willow Brook Pond 2009 Annual Groundwater Monitoring Report

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Table 5-2

## SUMMARY OF ANALYTICAL RESULTS (DETECTS)



**Pratt & Whitney, East Hartford, Connecticut: Willow Brook & Willow Brook Pond 2009 Annual  
Groundwater Monitoring Report**

Loureiro Engineering Associates, Inc.

	Location ID	WT-MW-50	WT-MW-50	WT-MW-57	WT-MW-57	WT-MW-57	WT-MW-57	WT-MW-57
	Sample ID	1136028	1136028	1117652	1117652	1123433	1123433	1130880
	Sample Date	12/08/2009	12/08/2009	03/11/2009	03/11/2009	06/04/2009	06/04/2009	09/09/2009
	Sample Time	12:55	12:55	10:55	10:55	14:45	14:45	11:46
	Sample Depth	16.00' - 26.0	16.00' - 26.0	8.00' - 18.00	8.00' - 18.00	8.00' - 18.00	8.00' - 18.00	8.00' - 18.00
	Laboratory	ACTM	ACTM	ACTM	ACTM	ACTM	ACTM	ACTM
	Lab. Number	M87915-3	M87915-4	M81204-10	M81204-11	M83376-3	M83376-4	M85689-1
Constituent	Units							
Date Metals Analyzed	-		12/14/2009		03/13/2009		06/11/2009	
Date Organics Analyzed	-	12/21/2009		03/18/2009		06/09/2009		09/11/2009
Date Physical Analyzed	-	12/19/2009		03/17/2009				09/17/2009
Arsenic	mg/L							
Arsenic (unfiltered)	mg/L		0.0074					
Barium (unfiltered)	mg/L		0.349		0.307		0.266	
Cadmium (unfiltered)	mg/L							
Chromium, Total (unfiltered)	mg/L							
Copper (unfiltered)	mg/L							
Nickel (unfiltered)	mg/L		0.0864		0.0706		0.0890	
Zinc (unfiltered)	mg/L							
Total Petroleum Hydrocarbons (CT ETPH)	mg/L	0.209		0.129				0.157
Benzene	ug/L	0.65						
1,1,1-Trichloroethane	ug/L	5.0						
1,1,2-Trichlorotrifluoroethane	ug/L							
1,1-Dichloroethane	ug/L	5.8						
1,2-Dichloroethane	ug/L	1.4						
Chloroethane	ug/L	5.8						
Methyl tert-Butyl ether	ug/L							
1,1-Dichloroethylene	ug/L	13.4						
trans-1,2-Dichloroethylene	ug/L							
cis-1,2-Dichloroethylene	ug/L	17.6		1.5		2.0		4.3
Vinyl Chloride	ug/L	4.3						
Tetrachloroethylene	ug/L	6.4		6.2		4.1		6.7
Trichloroethylene	ug/L	80.3		24.7		8.3		19.5
Tetrahydrofuran	ug/L	23.3						
Chloromethane	ug/L							
Methylene Chloride	ug/L							



# Pratt & Whitney, East Hartford, Connecticut: Willow Brook & Willow Brook Pond 2009 Annual Groundwater Monitoring Report

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Table 5-2

## SUMMARY OF ANALYTICAL RESULTS (DETECTS)



**Pratt & Whitney, East Hartford, Connecticut: Willow Brook & Willow Brook Pond 2009 Annual  
Groundwater Monitoring Report**

Loureiro Engineering Associates, Inc.

	Location ID	WT-MW-57	WT-MW-57	WT-MW-57	WT-MW-58	WT-MW-58	WT-MW-58	WT-MW-58
	Sample ID	1130880	1136010	1136010	1117653	1117653	1123428	1123428
	Sample Date	09/09/2009	12/08/2009	12/08/2009	03/11/2009	03/11/2009	06/04/2009	06/04/2009
	Sample Time	11:46	15:15	15:15	13:35	13:35	15:20	15:20
	Sample Depth	8.00' - 18.00	8.00' - 18.00	8.00' - 18.00	8.00' - 18.00	8.00' - 18.00	8.00' - 18.00	8.00' - 18.00
	Laboratory	ACTM	ACTM	ACTM	ACTM	ACTM	ACTM	ACTM
	Lab. Number	M85689-2	M87915-11	M87915-12	M81204-12	M81204-13	M83376-14	M83376-15
Constituent	Units							
Date Metals Analyzed	-	09/15/2009		12/14/2009		03/13/2009		06/11/2009
Date Organics Analyzed	-		12/15/2009		03/18/2009		06/10/2009	
Date Physical Analyzed	-				03/17/2009			
Arsenic	mg/L							
Arsenic (unfiltered)	mg/L					0.0053		0.0057
Barium (unfiltered)	mg/L	0.376		0.365		0.218		
Cadmium (unfiltered)	mg/L							
Chromium, Total (unfiltered)	mg/L							
Copper (unfiltered)	mg/L	0.0374						
Nickel (unfiltered)	mg/L	0.0797						
Zinc (unfiltered)	mg/L							
Total Petroleum Hydrocarbons (CT ETPH)	mg/L				0.121			
Benzene	ug/L							
1,1,1-Trichloroethane	ug/L							
1,1,2-Trichlorotrifluoroethane	ug/L							
1,1-Dichloroethane	ug/L							
1,2-Dichloroethane	ug/L							
Chloroethane	ug/L							
Methyl tert-Butyl ether	ug/L							
1,1-Dichloroethylene	ug/L							
trans-1,2-Dichloroethylene	ug/L							
cis-1,2-Dichloroethylene	ug/L		3.6					
Vinyl Chloride	ug/L							
Tetrachloroethylene	ug/L		4.2		2.0			
Trichloroethylene	ug/L		17.6		1.6		1.2	
Tetrahydrofuran	ug/L							
Chloromethane	ug/L							
Methylene Chloride	ug/L							



# Pratt & Whitney, East Hartford, Connecticut: Willow Brook & Willow Brook Pond 2009 Annual Groundwater Monitoring Report

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Table 5-2

## SUMMARY OF ANALYTICAL RESULTS (DETECTS)



**Pratt & Whitney, East Hartford, Connecticut: Willow Brook & Willow Brook Pond 2009 Annual  
Groundwater Monitoring Report**

Loureiro Engineering Associates, Inc.

	Location ID	WT-MW-58	WT-MW-58	WT-MW-58	WT-MW-59	WT-MW-59	WT-MW-59	WT-MW-59
	Sample ID	1130892	1130892	1136020	1117654	1117654	1123427	1123427
	Sample Date	09/11/2009	09/11/2009	12/09/2009	03/11/2009	03/11/2009	06/05/2009	06/05/2009
	Sample Time	14:40	14:40	11:20	15:20	15:20	10:45	10:45
	Sample Depth	8.00' - 18.00	8.00' - 18.00	8.00' - 18.00	8.00' - 18.00	8.00' - 18.00	8.00' - 18.00	8.00' - 18.00
	Laboratory	ACTM	ACTM	ACTM	ACTM	ACTM	ACTM	ACTM
	Lab. Number	M85761-14	M85761-15	M87994-3	M81204-14	M81204-15	M83394-1	M83394-2
Constituent	Units							
Date Metals Analyzed	-		09/16/2009			03/13/2009		06/11/2009
Date Organics Analyzed	-	09/19/2009		12/17/2009	03/18/2009		06/12/2009	
Date Physical Analyzed	-	09/23/2009			03/17/2009		06/18/2009	
Arsenic	mg/L							
Arsenic (unfiltered)	mg/L		0.0048					
Barium (unfiltered)	mg/L		0.243					
Cadmium (unfiltered)	mg/L					0.0293		0.0619
Chromium, Total (unfiltered)	mg/L							
Copper (unfiltered)	mg/L							
Nickel (unfiltered)	mg/L					1.51		1.66
Zinc (unfiltered)	mg/L					0.0268		
Total Petroleum Hydrocarbons (CT ETPH)	mg/L	0.0808			1.24		0.763	
Benzene	ug/L							
1,1,1-Trichloroethane	ug/L							
1,1,2-Trichlorotrifluoroethane	ug/L							
1,1-Dichloroethane	ug/L				20.6		23.4	
1,2-Dichloroethane	ug/L							
Chloroethane	ug/L							
Methyl tert-Butyl ether	ug/L							
1,1-Dichloroethylene	ug/L							
trans-1,2-Dichloroethylene	ug/L							
cis-1,2-Dichloroethylene	ug/L	1.6		2.9	14.9		15.5	
Vinyl Chloride	ug/L				20.4		24.1	
Tetrachloroethylene	ug/L	1.8		19.6	2.3		2.2	
Trichloroethylene	ug/L	1.4		6.5	6.5		6.9	
Tetrahydrofuran	ug/L							
Chloromethane	ug/L							
Methylene Chloride	ug/L						2.6	





# Pratt & Whitney, East Hartford, Connecticut: Willow Brook & Willow Brook Pond 2009 Annual Groundwater Monitoring Report

[illegible]

Table 5-2

## SUMMARY OF ANALYTICAL RESULTS (DETECTS)



**Pratt & Whitney, East Hartford, Connecticut: Willow Brook & Willow Brook Pond 2009 Annual  
Groundwater Monitoring Report**

Loureiro Engineering Associates, Inc.

	Location ID	WT-MW-59	WT-MW-59	WT-MW-59	WT-MW-59			
	Sample ID	1130891	1130891	1136021	1136021			
	Sample Date	09/11/2009	09/11/2009	12/09/2009	12/09/2009			
	Sample Time	12:40	12:40	12:40	12:40			
	Sample Depth	8.00' - 18.00	8.00' - 18.00	8.00' - 18.00	8.00' - 18.00			
	Laboratory	ACTM	ACTM	ACTM	ACTM			
	Lab. Number	M85761-1	M85761-2	M87994-5	M87994-6			
Constituent	Units							
Date Metals Analyzed	-		09/16/2009		12/17/2009			
Date Organics Analyzed	-	09/18/2009		12/17/2009				
Date Physical Analyzed	-	09/23/2009		12/23/2009				
Arsenic	mg/L							
Arsenic (unfiltered)	mg/L							
Barium (unfiltered)	mg/L							
Cadmium (unfiltered)	mg/L		0.0147		0.0708			
Chromium, Total (unfiltered)	mg/L							
Copper (unfiltered)	mg/L				0.0253			
Nickel (unfiltered)	mg/L		1.09		1.95			
Zinc (unfiltered)	mg/L							
Total Petroleum Hydrocarbons (CT ETPH)	mg/L	0.997		0.555				
Benzene	ug/L	0.51						
1,1,1-Trichloroethane	ug/L							
1,1,2-Trichlorotrifluoroethane	ug/L	5.8						
1,1-Dichloroethane	ug/L	29.1		4.5				
1,2-Dichloroethane	ug/L							
Chloroethane	ug/L							
Methyl tert-Butyl ether	ug/L							
1,1-Dichloroethylene	ug/L							
trans-1,2-Dichloroethylene	ug/L	1.1						
cis-1,2-Dichloroethylene	ug/L	14.7		2.7				
Vinyl Chloride	ug/L	32.0		3.1				
Tetrachloroethylene	ug/L	3.2		1.5				
Trichloroethylene	ug/L	6.6						
Tetrahydrofuran	ug/L							
Chloromethane	ug/L							
Methylene Chloride	ug/L	2.8						

## SUMMARY OF ANALYTICAL RESULTS (DETECTS)



## Loureiro Engineering Associates, Inc.

[illegible]



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## Page 2 of 4

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Page 3 of 4



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# Groundwater Monitoring Report

[illegible]



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Printed on 12/28/2009



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Page 3 of 3



# Pratt & Whitney, East Hartford, Connecticut: Willow Brook & Willow Brook Pond 2009 Annual Groundwater Monitoring Report

[illegible]



Loureiro Engineering Associates, Inc.

Loureiro Engineering Associates, Inc.

Loureiro Engineering Associates, Inc.

[illegible]



Loureiro Engineering Associates, Inc.

Loureiro Engineering Associates, Inc.

Loureiro Engineering Associates, Inc.

[illegible]

**EXCEEDANCES OF INDUSTRIAL/COMMERCIAL VOLATILIZATION CRITERIA (2003 DRAFT)**

**EXCEEDANCES OF INDUSTRIAL/COMMERCIAL VOLATILIZATION CRITERIA (2003 DRAFT)**



# Groundwater Monitoring Report

[illegible]





# Groundwater Monitoring Report

[illegible]



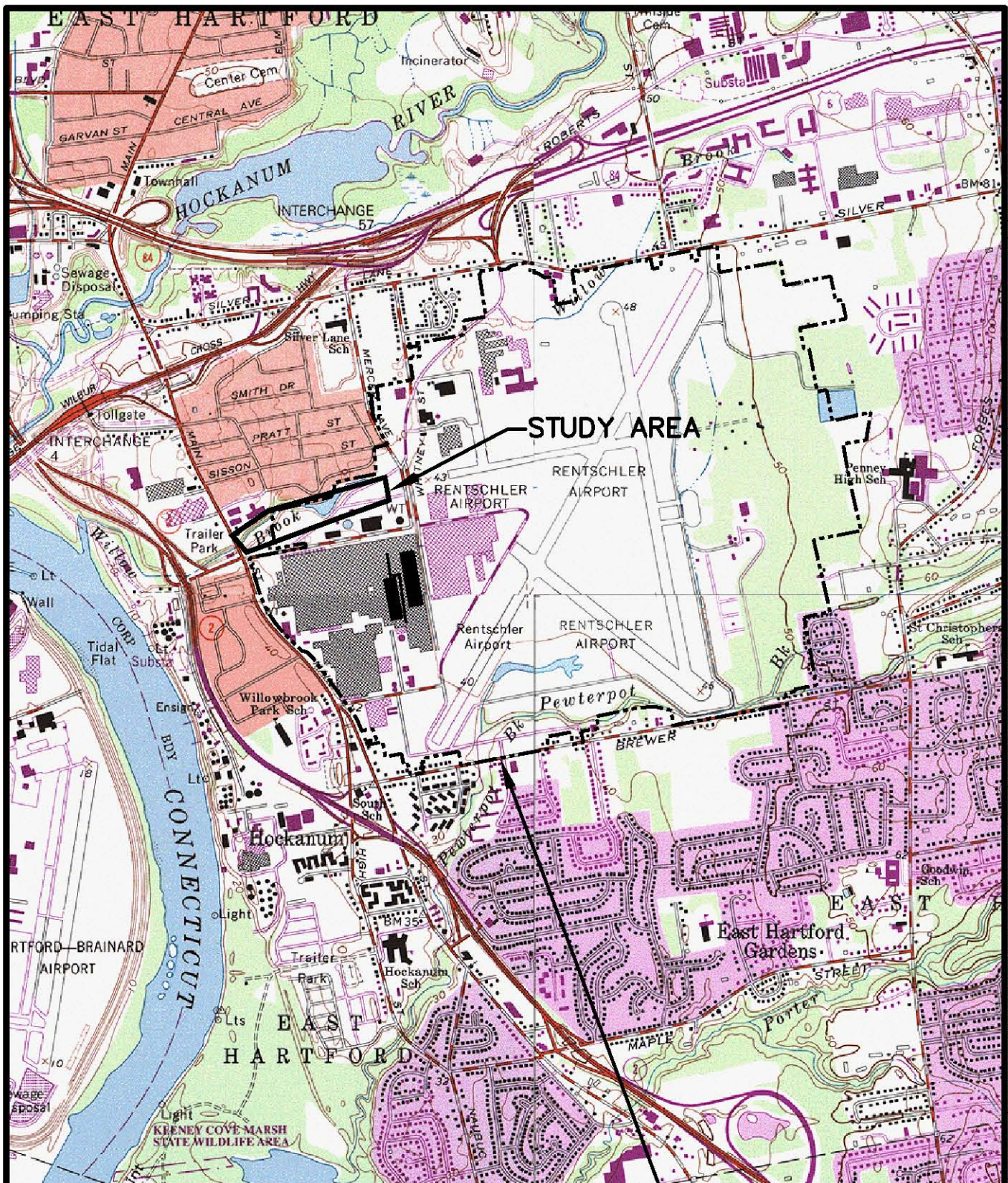
Loureiro Engineering Associates, Inc.

Printed on 12/28/2009

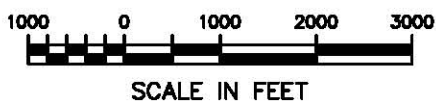
## FIGURES







**MAP REFERENCE:**  
USGS 7.5 MINUTE SERIES QUADRANGLES FOR  
HARTFORD NORTH, HARTFORD SOUTH,  
GLASTONBURY, AND MANCHESTER CONN.,  
DATED 1964 & 1963 AND REVISED 1992.



2009 ANNUAL POST-REMEDIATION MAINTENANCE AND GROUNDWATER MONITORING PROGRAM  
PRATT & WHITNEY, EAST HARTFORD, CT

## SITE LOCATION MAP

Comm.No.  
88UT907

**FIGURE 2-1**

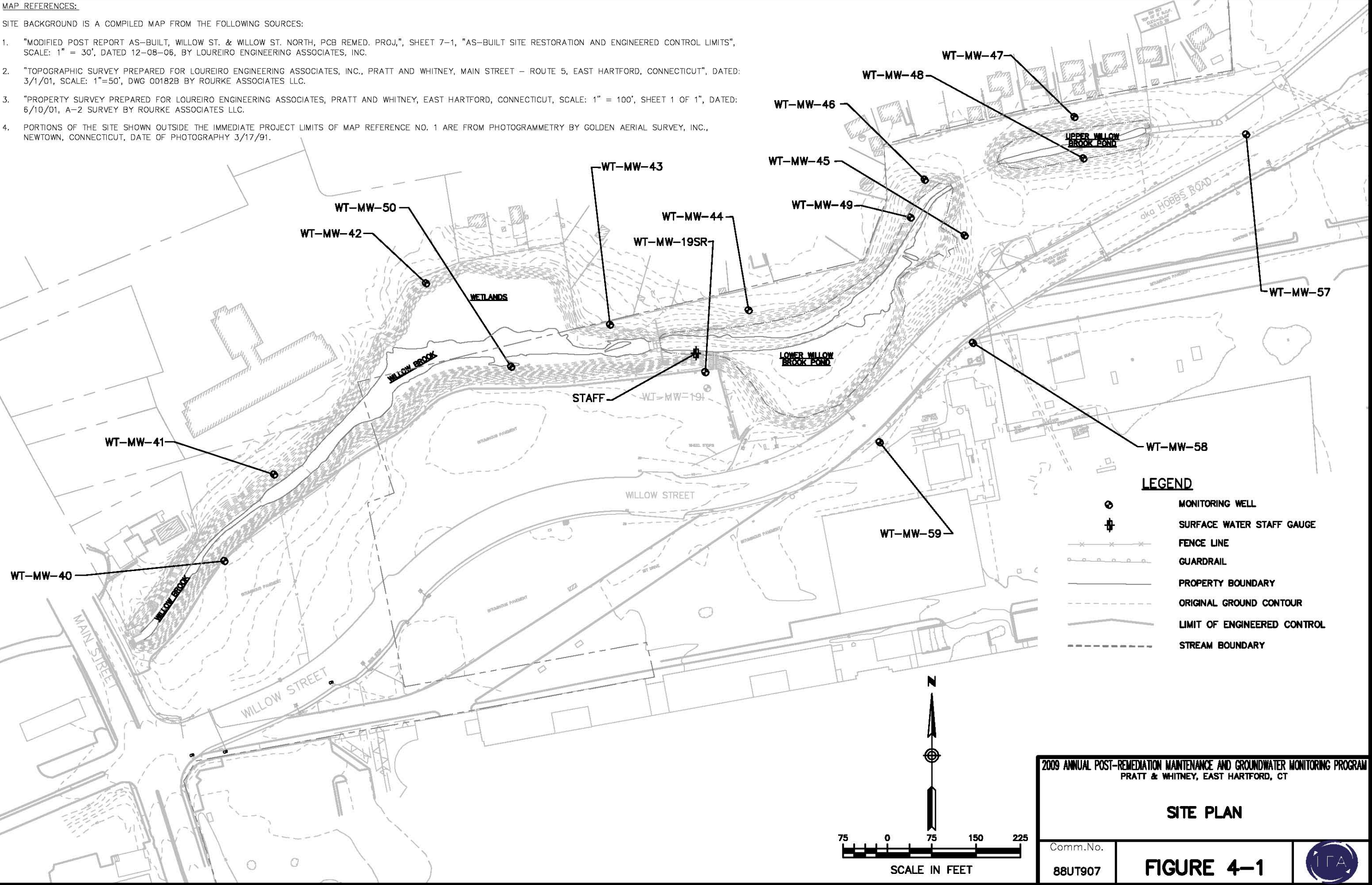




MAP REFERENCES:

SITE BACKGROUND IS A COMPILED MAP FROM THE FOLLOWING SOURCES:

1. "MODIFIED POST REPORT AS-BUILT, WILLOW ST. & WILLOW ST. NORTH, PCB REMED. PROJ.," SHEET 7-1, "AS-BUILT SITE RESTORATION AND ENGINEERED CONTROL LIMITS", SCALE: 1" = 30', DATED 12-08-06, BY LOUREIRO ENGINEERING ASSOCIATES, INC.
2. "TOPOGRAPHIC SURVEY PREPARED FOR LOUREIRO ENGINEERING ASSOCIATES, INC., PRATT AND WHITNEY, MAIN STREET - ROUTE 5, EAST HARTFORD, CONNECTICUT", DATED: 3/1/01, SCALE: 1"=50', DWG 00182B BY ROURKE ASSOCIATES LLC.
3. "PROPERTY SURVEY PREPARED FOR LOUREIRO ENGINEERING ASSOCIATES, PRATT AND WHITNEY, EAST HARTFORD, CONNECTICUT, SCALE: 1" = 100', SHEET 1 OF 1", DATED: 6/10/01, A-2 SURVEY BY ROURKE ASSOCIATES LLC.
4. PORTIONS OF THE SITE SHOWN OUTSIDE THE IMMEDIATE PROJECT LIMITS OF MAP REFERENCE NO. 1 ARE FROM PHOTOGRAMMETRY BY GOLDEN AERIAL SURVEY, INC., NEWTOWN, CONNECTICUT, DATE OF PHOTOGRAPHY 3/17/91.

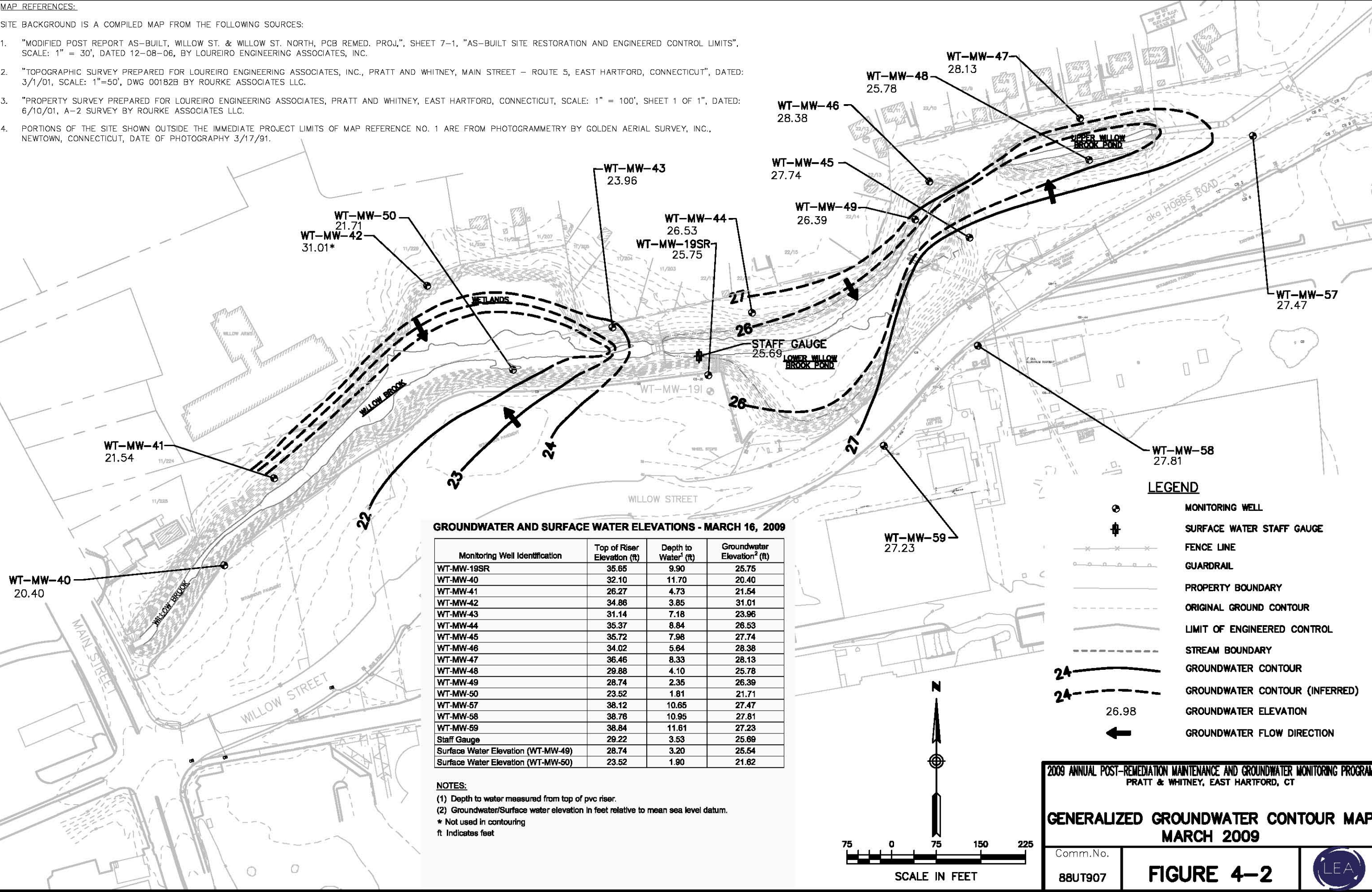




MAP REFERENCES:

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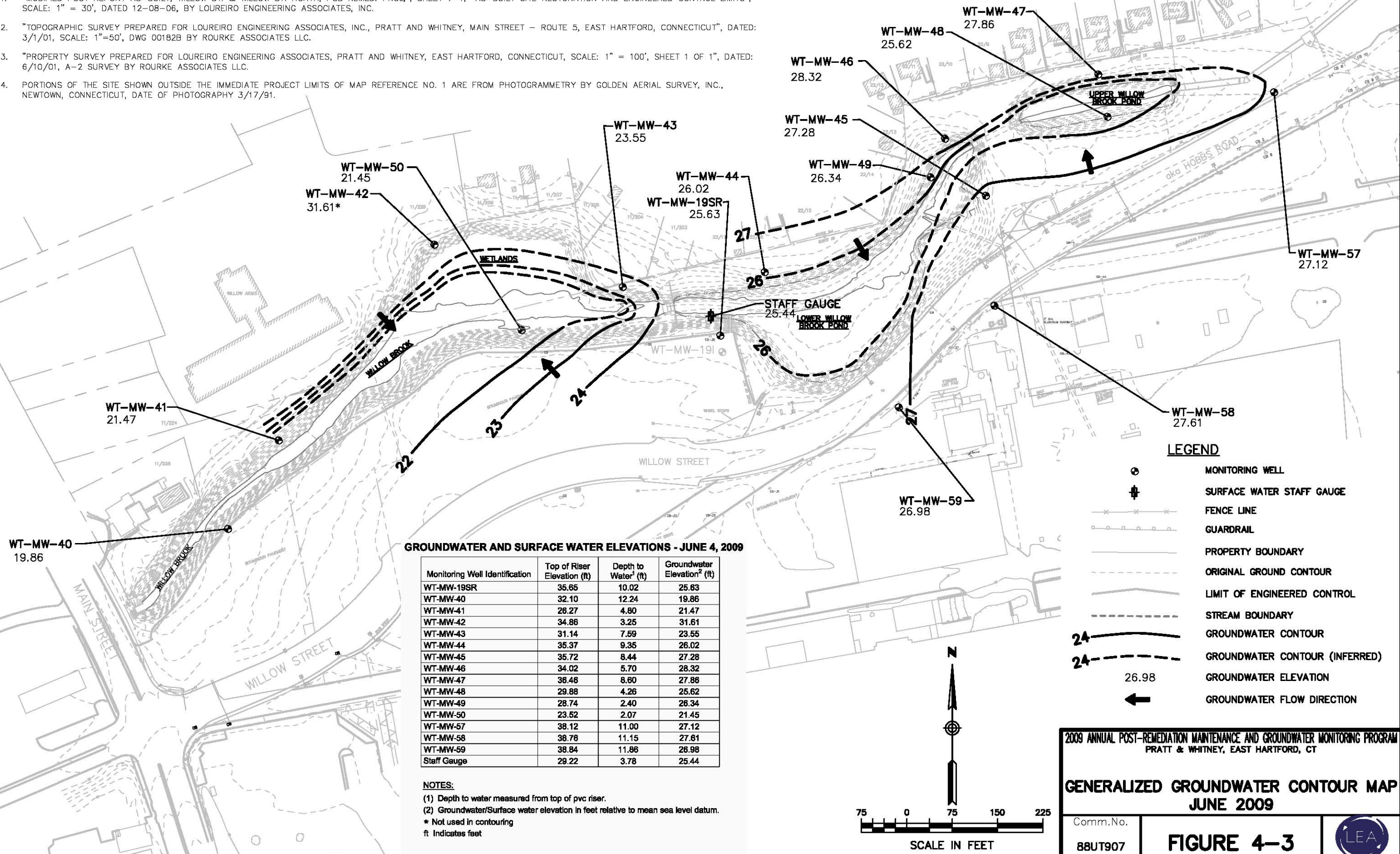




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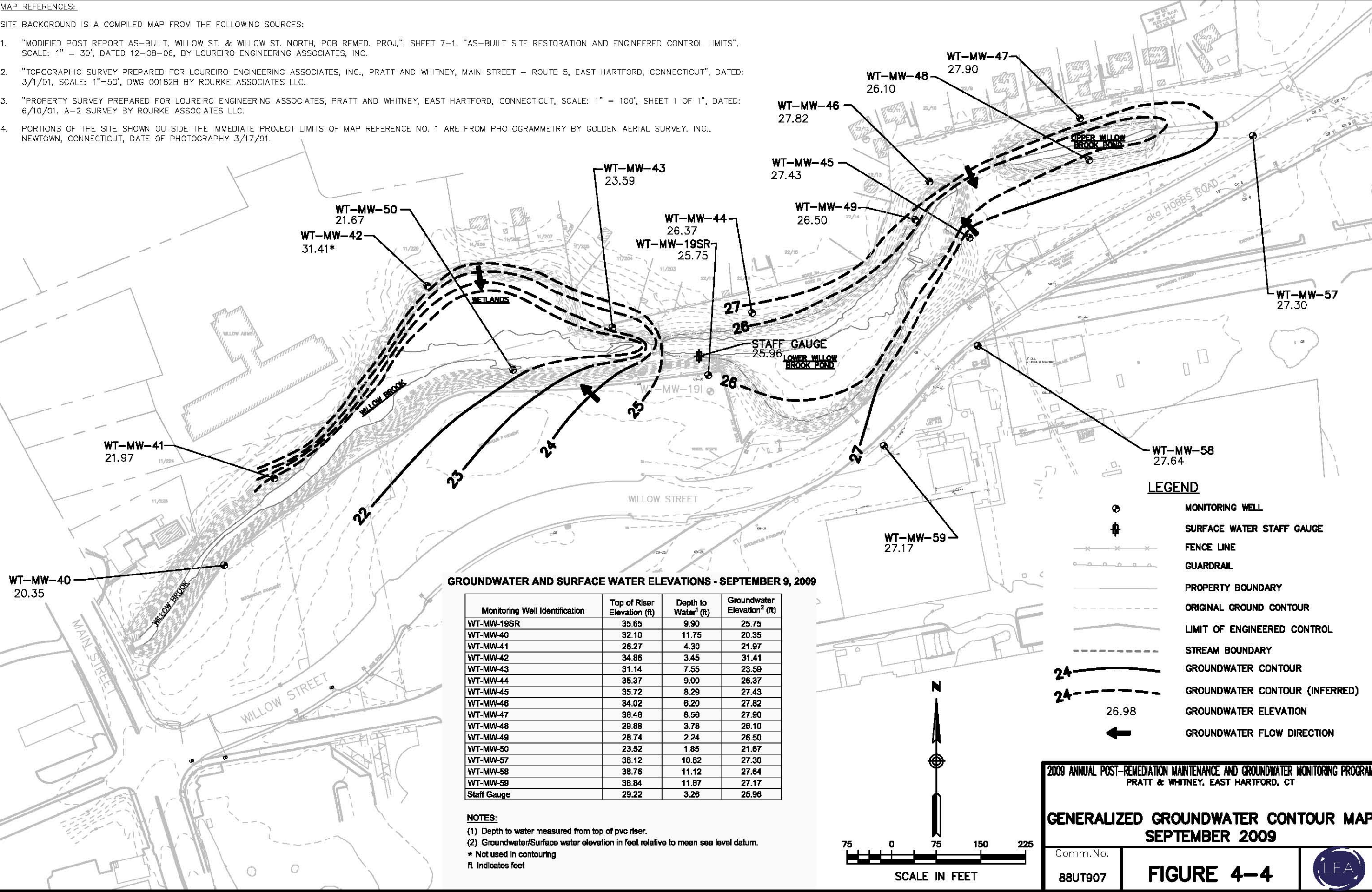




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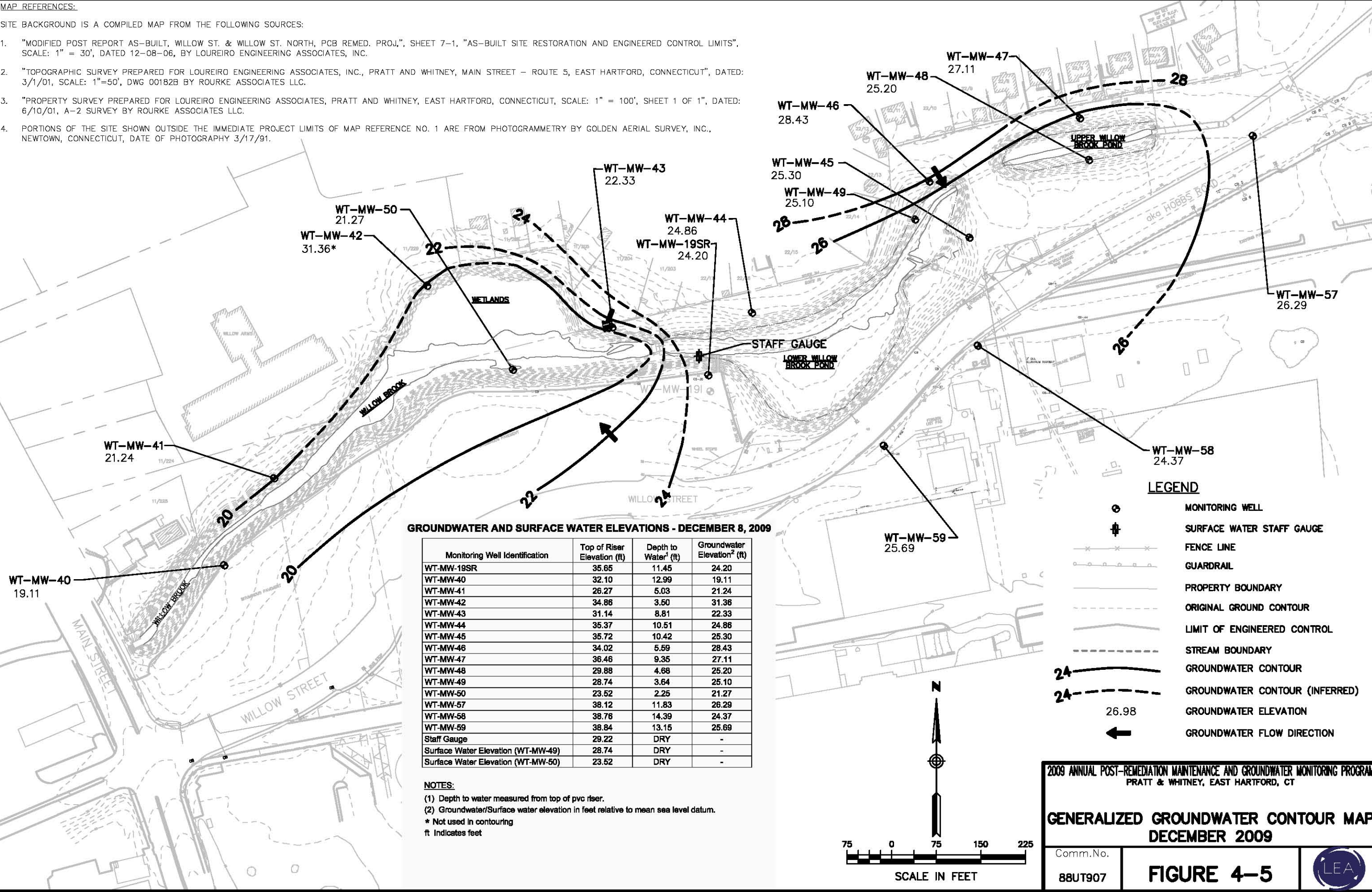




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**Appendix A**  
**Copies of Field Paperwork**



## DAILY FIELD REPORT





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## DAILY FIELD REPORT

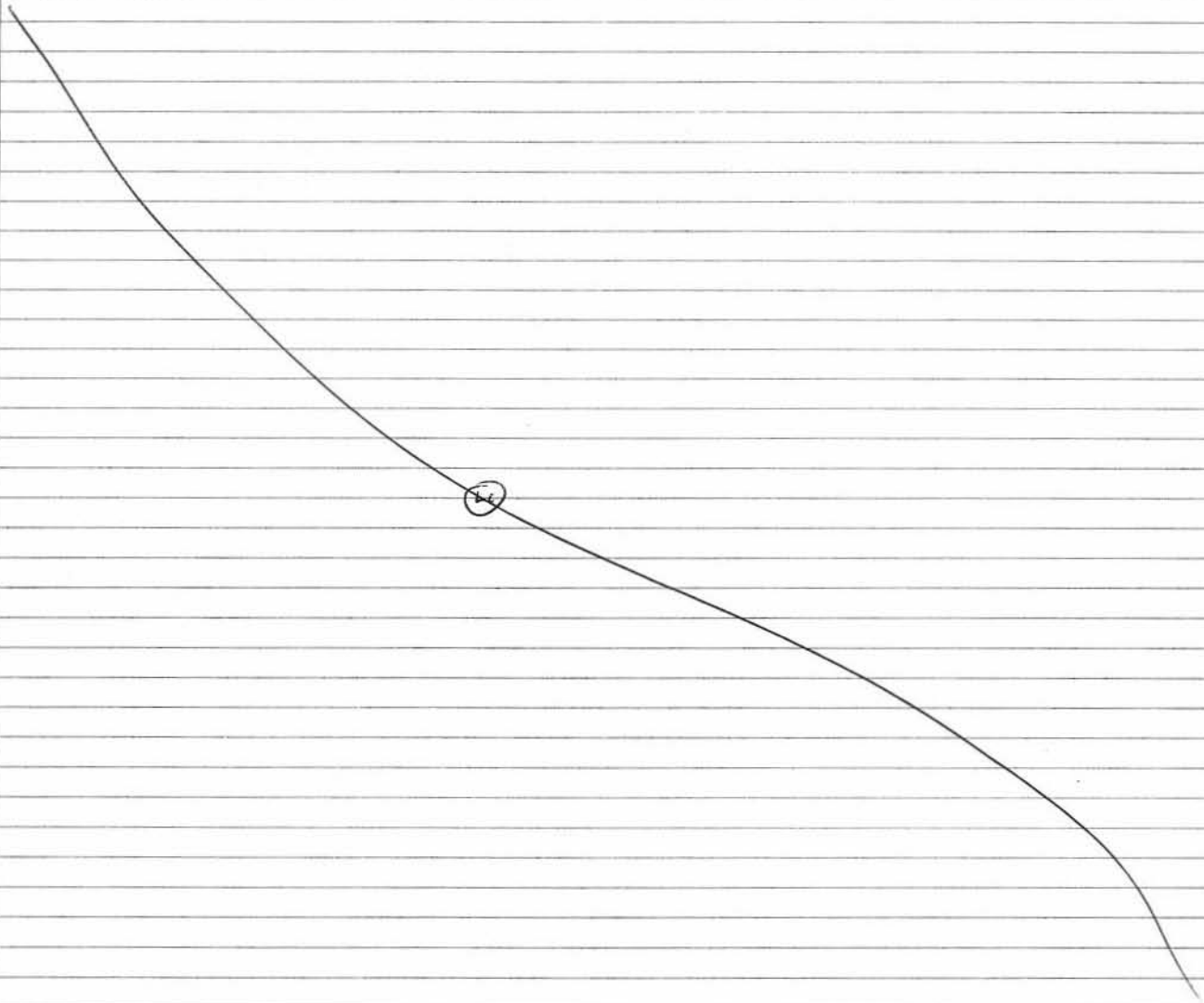
### Supplemental Sheet

LEA Comm. No. 88UT907.001  
Project UTC P&W Willowpond Quarterly GW Mon.  
Location P&W East Hartford, East Hartford, CT  
Client Pratt & Whitney Division - JTot

Page 2 of 14  
Date 3/10/09

#### Description of Site Activities

0800 on site.  
Cal'd equipment.  
Discussed H+S.  
Began water levels.  
Began monitoring.  
Ended monitoring.  
Waste. 1500  
Sample Pickup. 1530  
Off site. 1600



Field Personnel C. Scott Brown  
Nate Emmons

Luke Chmielecki

Signature



Loureiro Engineering Associates, Inc.

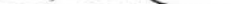
## DAILY FIELD REPORT CALIBRATION RECORD

LEA Comm. No. 88UT907.001		Page 3 of 14					
Project UTC P&W Willowpond Quarterly GW Mon.		Date 3/10/09					
Location P&W East Hartford, East Hartford, CT							
Client Pratt & Whitney Division - JTot							
pH Meter/Serial # 99K0055AB/05F1549/01C0979AA							
	Time	pH 4.01	pH 7.00	pH 10.01	Spec. Cond.	ORP	DO %
Initial Calibration	0800	✓	✓	✓	✓	✓	100.0/100.1/99.9
Calibration Check							
Calibration Check							
Turbidity Meter/Serial # 3522/TURB6/3521							
	Time	0 NTU	20 NTU	100 NTU	800 NTU		
Initial Calibration	0800	✓	✓	✓	✓		
Calibration Check							
Calibration Check							
PID Meter/Serial # 3053							
	Time	Standard	Meter Reading	Zero with			
Initial Calibration	0800	100	100	Background			
Calibration Check							
Calibration Check							
Balance/Serial #							
	Time	Standard	Balance				
Initial Calibration							
Calibration Check							
Calibration Check							
Comments							
Field Personnel C. Scott Brown Luke Chmielecki							
Nate Emmons							
Signature							



LEA Comm. No.	88UT907.001
Project	UTC P&W Willowpond Quarterly GW Mon.
Location	P&W East Hartford, East Hartford, CT
Client	Pratt & Whitney Division - JTot

Page 4 of 14  
Date 3 / 10 / 09

Field Personnel	C. Scott Brown	Luke Chmielecki	<i>Signature</i>
	Nate Emmons		



Loureiro Engineering Associates, Inc.

# FIELD SAMPLING RECORD MONITORING WELL INVENTORY

LEA Comm. No. 88UT907.001

Project UTC P&W Willowpond Quarterly GW Mon.

Location P&W East Hartford, East Hartford, CT

Client Pratt & Whitney Division - JTot

Page 5 of 14

Date 3/10/09

Sample ID	Location ID	Time	Predicted Depth of Well to Water	Actual Depth of Well to Water	PID/FID	Reference Elevation	Comments
2231949	WT-MW-47			14.30 8.33	0.0		
2231950	WT-MW-46			12.55 5.64	0.0		
2231951	WT-MW-49			7.50 2.35	0.0	3.20	
2231952	WT-MW-45			13.60 7.98	0.0		
2231953	WT-MW-48			7.50 4.10	0.0		
2231954	WT-MW-57			18.00 10.65	0.0		
2231955	WT-MW-58			17.55 10.95	0.0		
2231956	WT-MW-59			17.60 11.61	0.0		
2231957	WT-MW-44			13.50 8.84	0.0		
2231958	WT-MW-195R			12.10 9.90	0.0		
2231959	STAFF			NM 3.53	NM		
2231960	WT-MW-43			11.80 7.18	0.0		
2231961	WT-MW-50			5.23 1.81	0.0	1.90	
2231962	WT-MW-42			9.33 3.85	0.0		
2231963	WT-MW-41			9.51 4.73	0.0		
2231964	WT-MW-40			17.60 11.70	0.0		
2231965	UNIDENTIFIED			11.70 9.91	0.0		

Field Personnel

C. Scott Brown

Nate Emmons

Luke Chmielecki

Signature





**FIELD SAMPLING RECORD**  
**LOW FLOW WELL SAMPLE**

LEA Comm. No.	88UT907.001	Page <u>7</u> of <u>14</u>
Project	UTC P&W Willowpond Quarterly GW Mon.	Date <u>3/10/09</u>
Location	P&W East Hartford, East Hartford, CT	Sample Time <u>10:35</u>
Client	Pratt & Whitney Division - JTot	

Monitoring Well Number WT-MW-48 Sample Number(s) 1117649 1117649 f

### Initial Field Data and Measurements

Depth of Well	7.50	Reference Used	ToR			
Depth to Water	4.10	PID/FID Reading	0.0			
Height of Column	3.40	Interface	Yes / No	If yes, Depth _____ Lighter / Heavier		
Well Casing Diameter	2"	Material	PVC	General Condition		
Protector	Road Box / Stickup			OK	Bad	
Ground to Reference				Casing Secure	✓	
Comments				Collar Intact	✓	
				Cover Locked	✓	
				Other (describe)		


### Development Information

[illegible]Development Method Peristaltic Pump / Bailer / Inertial Pump / Other

**Sample Field Treatment** *If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!*

Field Decontamination? Yes No If Yes, with what? \_\_\_\_\_  
Waste Container ID 707307

### Additional Comments

Field Personnel	C. Scott Brown	Luke Chmielecki	<i>Signature</i>
	Nate Emmons		



**FIELD SAMPLING RECORD**  
**LOW FLOW WELL SAMPLE**

LEA Comm. No.	88UT907.001
Project	UTC P&W Willowpond Quarterly GW Mon.
Location	P&W East Hartford, East Hartford, CT
Client	Pratt & Whitney Division - JTot

Page 9 of 14  
Date 3/10/09  
Sample Time 12:35

Monitoring Well Number WT-MW-45 Sample Number(s) 1117650 1117650.f

### Initial Field Data and Measurements

Depth of Well	<u>13.60</u>	Reference Used	<u>ToR</u>	
Depth to Water	<u>7.98</u>	PID/FID Reading	<u>0.0</u>	
Height of Column	<u>5.62</u>	Interface	Yes / No    If yes, Depth _____	Lighter / Heavier
Well Casing Diameter	<u>1/2"</u>	Material	<u>PVC</u>	General Condition
Protector	<u>Road Box / Stickup</u>			OK      Bad
Ground to Reference	_____			Casing Secure      ✓
Comments	_____			Collar Intact      ✓
				Cover Locked      ✓
				Other (describe)

### Development Information

[illegible]Development Method Peristaltic Pump / Bailer / Inertial Pump / Other

**Sample Field Treatment** *If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!*

Field Decontamination? Yes No If Yes, with what?

Waste Container ID 707307

### Additional Comments

Field Personnel	C. Scott Brown	Luke Chmielecki
	Nate Emmons	

*Signature*

Signature 



Loureiro Engineering Associates, Inc.

## FIELD SAMPLING RECORD

## LOW FLOW WELL SAMPLE

LEA Comm. No. 88UT907.001 Page 10 of 14  
 Project UTC P&W Willowpond Quarterly GW Mon. Date 3/20/09  
 Location P&W East Hartford, East Hartford, CT Sample Time 12:45  
 Client Pratt & Whitney Division - JTot

Monitoring Well Number WT-MW-42 Sample Number(s) 1117645 111764307

## Initial Field Data and Measurements

Depth of Well 5.85 9.33 Reference Used 500  
 Depth to Water 9.33 3.85 PID/FID Reading 0.0  
 Height of Column 46 5.48 Interface Yes / ☒ NO If yes, Depth Lighter / Heavier  
 Well Casing Diameter 0.5" Material PVC General Condition OK Bad  
 Protector Road Box / Stickup Casing Secure ☒  
 Ground to Reference 502 Collar Intact ☒  
 Comments Cover Locked ☒  
 Other (describe)

## Development Information

Parameter Time	Depth to Water	Pump Setting	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	Comment
11:30	-	300	100	1.02	8.92	310	5.91	167.5	4.61	27.7	
11:40	-	300	100	2.02	8.90	300	5.81	195.8	3.44	16.1	
11:50	-	300	100	3.02	8.96	288	5.84	212.6	3.27	12.5	
12:00	-	300	100	4.02	9.01	272	5.86	220.6	3.13	9.71	
12:10	-	300	100	5.02	9.00	259	5.90	229.1	2.99	6.06	
12:20	-	300	100	6.02	9.02	250	5.91	236.5	2.86	3.12	
12:30	-	300	100	7.02	9.00	247	5.93	240.1	2.71	3.01	
12:40	-	300	100	8.02	9.01	244	5.91	247.6	2.62	2.60	
12:45	-	300	100	9.02	9.04	240	5.92	251.3	2.53	2.44	Sample

Development Method Peristaltic Pump / Bailor / Inertial Pump / Other

Sample Field Treatment If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!

Field Decontamination? Yes / ☒ NO If Yes, with what?  
 Waste Container ID 707307

Additional Comments will replace well cap tomorrow - Not able to check water level due to diameter of well.

Field Personnel C. Scott Brown Luke Chmielecki Signature  
 Nate Emmons Scott Brown

Loureiro Engineering Associates, Inc.



**FIELD SAMPLING RECORD**  
**LOW FLOW WELL SAMPLE**

Loureiro Engineering Associates, Inc.

LEA Comm. No.	88UT907.001
Project	UTC P&W Willowpond Quarterly GW Mon.
Location	P&W East Hartford, East Hartford, CT
Client	Pratt & Whitney Division - JTot

Page 12 of 14  
Date 3/10/09  
Sample Time 14:00

Monitoring Well Number WT-MW-47 Sample Number(s) 1117651 1117651of

### Initial Field Data and Measurements

Depth of Well	14.30	Reference Used	TOR		
Depth to Water	8.33	PID/FID Reading	0.0		
Height of Column	5.97	Interface	Yes / No	If yes, Depth	Lighter / Heavier
Well Casing Diameter	1/2"	Material	PVC	General Condition	OK Bad
Protector	Road Box / Stickup			Casing Secure	<input checked="" type="checkbox"/> <input type="checkbox"/>
Ground to Reference				Collar Intact	<input checked="" type="checkbox"/> <input type="checkbox"/>
Comments				Cover Locked	<input checked="" type="checkbox"/> <input type="checkbox"/>
				Other (describe)	<input type="checkbox"/> <input type="checkbox"/>

### Development Information

Time	Parameter Depth to Water	Pump Setting RPM	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	Comment
1320	8.33	300	100	0							Start
1330	↓	↓	↓	1	11.49	350	5.55	190.6	5.35	3.49	
1340	⊕	⊕	⊕	2	11.39	342	5.58	189.9	4.96	2.96	⊖
1350	↓	↓	↓	3	11.30	334	5.61	189.4	4.89	2.44	
1400	8.33	300	100	4	11.33	337	5.60	189.5	4.91	2.30	Sampled

Development Method Peristaltic Pump / Bailer / Inertial Pump / Other

**Sample Field Treatment** *If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!*

Field Decontamination? Yes No If Yes, with what?

Waste Container ID 707307

### Additional Comments

Field Personnel	C. Scott Brown Nate Emmons	Luke Chmielecki
-----------------	-------------------------------	-----------------

*Signature*

**FIELD SAMPLING RECORD**  
**LOW FLOW WELL SAMPLE**

LEA Comm. No.	88UT907.001	Page <u>13</u> of <u>14</u>
Project	UTC P&W Willowpond Quarterly GW Mon.	Date <u>3/10/09</u>
Location	P&W East Hartford, East Hartford, CT	Sample Time <u>14:25</u>
Client	Pratt & Whitney Division - JTot	

Monitoring Well Number WT-MW-76 Sample Number(s) 1117648 1117648 v4

### Initial Field Data and Measurements

Initial Field Data and Measurements

Depth of Well 12.55 Reference Used TafC

Depth to Water 5.64 PID/FID Reading \_\_\_\_\_

Height of Column \_\_\_\_\_ Interface Yes ☒ No ☐ If yes, Depth \_\_\_\_\_ Lighter / Heavier \_\_\_\_\_

Well Casing Diameter 1/2" Material PVC General Condition OK ☒ Bad ☐

Protector Road Box Stickup Casing Secure ☒

Ground to Reference \_\_\_\_\_ Collar Intact ☒

Comments \_\_\_\_\_ Cover Locked ☒

Other (describe) \_\_\_\_\_

### Development Information

[illegible]Development Method Peristaltic Pump Bailer / Inertial Pump / Other

**Sample Field Treatment** *If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!*

Field Decontamination? Yes / No      If Yes, with what? Meth on WLI  
Waste Container ID 707307

Additional Comments Unable to continuously monitor water level because of well dia.

Field Personnel	C. Scott Brown Nate Emmons	Luke Chmielecki	Signature <i>Nate Emmons</i>
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**FIELD SAMPLING RECORD**  
**LOW FLOW WELL SAMPLE**

Loureiro Engineering Associates, Inc.

LEA Comm. No.	88UT907.001	Page	14	of	14
Project	UTC P&W Willowpond Quarterly GW Mon.	Date	3/10/09		
Location	P&W East Hartford, East Hartford, CT	Sample Time	14:45		
Client	Pratt & Whitney Division - JTot				

Monitoring Well Number ~~WT-MW-4~~ <sup>WT-MW-11</sup> Sample Number(s) 1117643

### Initial Field Data and Measurements

Depth of Well	<u>9.51</u>	Reference Used	<u>ToC</u>	
Depth to Water	<u>4.75</u>	PID/FID Reading	<u>0.0</u>	
Height of Column	<u>4.78</u>	Interface	Yes / <u>No</u>	If yes, Depth _____ Lighter / Heavier _____
Well Casing Diameter	<u>0.5"</u>	Material	<u>PVC</u>	General Condition OK Bad
Protector	<u>Road Box / Stickup</u>			Casing Secure <input checked="" type="checkbox"/> <input type="checkbox"/>
Ground to Reference	<u>ToC</u>			Collar Intact <input checked="" type="checkbox"/> <input type="checkbox"/>
Comments				Cover Locked <input checked="" type="checkbox"/> <input type="checkbox"/>
				Other (describe) <input type="checkbox"/> <input type="checkbox"/>

### Development Information


[illegible]

Development Method	Peristaltic Pump	Bailer / Inertial Pump	Other
1			
2			
3			
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100			

**Sample Field Treatment** *If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!*

Field Decontamination? Yes / ~~No~~ If Yes, with what? \_\_\_\_\_  
Waste Container ID 707307

### Additional Comments

Field Personnel	C. Scott Brown Nate Emmons	Luke Chmielecki	Signature 
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1 of 4

TEL: 508-481-6200 • FAX: 508-481-7753

KBZ / 2009-453

CLIENT INFORMATION						FACILITY INFORMATION							ANALYTICAL INFORMATION								MATRIX CODES		
<b>NAME</b> LFA <u>Woonath West Drive</u>						<b>PROJECT NAME</b> <u>VTC PTH Willow Pond Quarry GW Mon</u>															DW - DRINKING WATER		
<b>ADDRESS</b> <u>Plainville CT 06062</u>						<b>LOCATION</b> <u>Pth East Hunt Ford</u>															GW - GROUND WATER		
<b>CITY STATE ZIP</b>						<b>PROJECT NO.</b> <u>SXUT907-001</u>															WW - WASTE WATER		
<b>SEND REPORT TO:</b> <u>Robi McKinney</u>						<b>FAX #</b>															SO - SOIL		
<b>PHONE #</b> <u>860-747-6181</u>																					SL - SLUDGE		
																					OI - OIL		
																					LQ - OTHER LIQUID		
																					SOL - OTHER SOLID		
ACCUTEST SAMPLE #		FIELD ID / POINT OF COLLECTION		COLLECTION			MATRIX		# OF BOTTLES	PRESERVATION													LAB USE ONLY
				DATE	TIME	SAMPLED BY:	HCl	NH <sub>4</sub> OH	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NONE	I											
✓	1117643	3/10/09	14.45	CSB	GW	4					X	x	x										
✓	1117643uf	3/10/09	14.45	CSB	GW	1					X			x									
✓	1117643	3/10/09	14.45	CSB	GW	2	X				X				x								
✓	1117644	3/10/09	12.45	CSB	GW	4					X	x	x										
✓	1117644uf	3/10/09	12.45	CSB	GW	1					X			x									
✓	1117644	3/10/09	12.45	CSB	GW	2	X				X				x								
✓	1117645	3/10/09	10:15	CSB	GW	4					X	x	x					*					
✓	1117645uf	3/10/09	10:15	CSB	GW	1					X			x									
✓	1117645	3/10/09	10:15	CSB	GW	2	X				X				x								
<b>DATA TURNAROUND INFORMATION</b>						<b>DATA DELIVERABLE INFORMATION</b>						<b>COMMENTS/REMARKS</b>											
<input checked="" type="checkbox"/> 14 DAYS STANDARD APPROVED BY: <input type="checkbox"/> 7 DAYS RUSH <input type="checkbox"/> 48 HOUR EMERGENCY <input type="checkbox"/> OTHER						<input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> COMMERCIAL "B" <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> STATE FORMS <input type="checkbox"/> OTHER (SPECIFY)						USE ITRCP Analytical list provided ITRCP report											
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY																							
RELINQUISHED BY SAMPLER:				DATE TIME:				RECEIVED BY:				RELINQUISHED BY:				DATE TIME:				RECEIVED BY:			
1.				3/10/09				1.				2.								2.			
RELINQUISHED BY:				DATE TIME:				RECEIVED BY:				RELINQUISHED BY:				DATE TIME:				RECEIVED BY:			
3.								3.				4.								4.			
RELINQUISHED BY:				DATE TIME:				SEAL #				PRESERVE WHERE APPLICABLE				ON ICE				TEMPERATURE			
5.								5.															



KB2 / 2009-453

[illegible]



Laboratories

3 of 4

## CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE

MARLBOROUGH, MA 01752

TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:

ACCUTEST QUOTE #:

KB2/2009-453

CLIENT INFORMATION		FACILITY INFORMATION				ANALYTICAL INFORMATION										MATRIX CODES
NAME LFA		PROJECT NAME Willow Pond Quarterly GW				VOCs 8260B Total PCRA 8 + Cu, Ni, Zn										DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OI - OIL LIQ - OTHER LIQUID SOL - OTHER SOLID
ADDRESS 100 Northwest Drive		LOCATION PWEH, CT														
CITY, STATE, ZIP Plainville CT 06062		PROJECT NO. 88UT907.001														
SEND REPORT TO: PHONE # 860-747-6181		FAX #														
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION			MATRIX	# OF BOTTLES	PRESERVATION						LAB USE ONLY			
		DATE	TIME	SAMPLED BY:			HCl	NaOH	HNO3	H2SO4	NONE	ICE				
1	1117663uf	3-10-09	1200	LC	GW	1			X			X	X			
1	1117662	3-10-09	1200	LC	GW	1	X					X	X			
DATA TURNAROUND INFORMATION		DATA DELIVERABLE INFORMATION				COMMENTS/REMARKS										
<input checked="" type="checkbox"/> 14 DAYS STANDARD <input checked="" type="checkbox"/> 7 DAYS RUSH <input type="checkbox"/> 48 HOUR EMERGENCY <input type="checkbox"/> OTHER		APPROVED BY:		<input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> COMMERCIAL "B" <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> STATE FORMS <input type="checkbox"/> OTHER (SPECIFY)		Use CT RCP analytical list Provide CT RCP Report										
14 DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED																
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY																
RELINQUISHED BY SAMPLER:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:						
1. [Signature]		3-10-09		1. [Signature]		2.				2.						
RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:						
3.				3.		4.				4.						
RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		SEAL #		PRESERVE WHERE APPLICABLE		ON ICE		TEMPERATURE				
5.				5.				<input type="checkbox"/>		<input type="checkbox"/>		C				



## CHAIN OF CUSTODY

KB2/2009-453

[illegible]





## DAILY FIELD REPORT

Loureiro Engineering Associates, Inc.

<b>LEA Comm. No.</b> 88UT907.001		Page <u>1</u> of <u>10</u>			
<b>Project</b> UTC P&W Willowpond Quarterly GW Mon.		Date <u>3/11/09</u>			
<b>Location</b> P&W East Hartford, East Hartford, CT					
<b>Client</b> Pratt & Whitney Division - JTot					
<b>Arrived at Site</b> <u>0900</u>	<b>Departed from Site</b> <u>1600</u>	<b>Vehicle</b> <u>3 Personals</u>	<u>60 miles each RT</u>		
<b>Site Activities</b>		<b>Odometer (Start)</b>	<b>Return</b>		
<input type="checkbox"/> Soil Sampling	<input type="checkbox"/> Geoprobe Work	<b>Current Project Information</b>			
<input checked="" type="checkbox"/> Groundwater Sampling	<input type="checkbox"/> Concrete Coring	Last Sample Number Used			
<input type="checkbox"/> Surface Water Sampling	<input type="checkbox"/> Construction	Last Location ID Used			
<input type="checkbox"/> Vapor/Air Sampling	<input type="checkbox"/> Waste Management	Current Location (if not complete)			
<input type="checkbox"/> Concrete Sampling		Sampling for			
<input type="checkbox"/> Other Sampling	<input type="checkbox"/> Inspection	Laboratories used			
<input type="checkbox"/> Other Sampling	<input type="checkbox"/> Site Walk Over	Paperwork & Equipment left at/in			
<input type="checkbox"/> Well Development	<input type="checkbox"/> Surveying	Site Contact			
	<input type="checkbox"/> Other (Describe)	Contractors on Site			
<b>Non-productive Time</b>		Time and place to meet contractors			
<input checked="" type="checkbox"/> None	<input type="checkbox"/> Weather				
<input type="checkbox"/> Equipment Breakdown	<input type="checkbox"/> Missing Equipment				
<input type="checkbox"/> Late	<input type="checkbox"/> Other (Describe)				
<b>Quality Assurance Checks</b>		<b>Residuals Disposition</b>			
Yes N/A No		Item Approx. Amount Container ID			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Soil/Solid		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Groundwater		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Decon Fluid		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PPE		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Other		
<input checked="" type="checkbox"/>	<input type="checkbox"/>		Sample labels complete		
<input checked="" type="checkbox"/>	<input type="checkbox"/>		Sample/cooler seals OK		
<input checked="" type="checkbox"/>	<input type="checkbox"/>		All samples obtained		
<input checked="" type="checkbox"/>	<input type="checkbox"/>		Chains of custody		
<input checked="" type="checkbox"/>	<input type="checkbox"/>		All forms/logs complete		
<input checked="" type="checkbox"/>	<input type="checkbox"/>		Site condition OK		
<input checked="" type="checkbox"/>	<input type="checkbox"/>		Site H&S Plan on site		
<input checked="" type="checkbox"/>	<input type="checkbox"/>		Instruments calibrated		
<b>Weather Conditions</b>					
Temperature <u>40°</u>		Precipitation <u>rain</u>			
Comments		Wind <u>5-10 mph</u>			
<b>Checked By</b>					
<u>Robin McKinney</u>					
<b>Expendable Items Used</b>		<b>Equipment Used</b>			
Qty	Item	LEA Number	Qty	Item	LEA Number
	Bailer, Disposable (specify size)	090		Generator 3500 Watt	153
	Decontamination Supplies	081		Meter, Conductivity	022
	Drum, Closed Top 55 Gallon	086		Meter, pH/Temp	021
	Filter, In Line	024	2	Miscellaneous Small Tools & Equipment	152
3	Miscellaneous Health & Safety Items	060		Pump, Grundfos	073
150'	Tubing, 1/2", NOS 1/4" Poly	007	3	Pump, Peristaltic (spec. Master or Isco)	040
	Tubing, 3/8", NOS	008		Pump, Submersible	201
	Water, Distilled	025		Pump, Watera	038
				Thermo-Anemometer	248
			3	Turbidimeter	023
			1	VOC Analyzer, Photovac 2020 (PID)	012
			3	Water Level Indicator	028
			3	YSI (rental)	
<b>Field Personnel</b>		<b>Signature</b>			
C. Scott Brown		<u>[Signature]</u>			
Nate Emmons					



Loureiro Engineering Associates, Inc.

## DAILY FIELD REPORT

### Supplemental Sheet

LEA Comm. No. 88UT907.001  
Project UTC P&W Willowpond Quarterly GW Mon.  
Location P&W East Hartford, East Hartford, CT  
Client Pratt & Whitney Division - JTot

Page 2 of 10  
Date 3 / 11 / 09

#### Description of Site Activities

0800 on site.  
Cal'd equipment.  
Discussed H+S.  
Began monitoring.  
Scott fixing well covers.  
Scott Doing Inspection.  
Waste - 1500  
Sample Pickup. 1530  
offsite. 1600

Field Personnel C. Scott Brown  
Nate Emmons

Luke Chmielecki

Signature



Loureiro Engineering Associates, Inc.


## DAILY FIELD REPORT CALIBRATION RECORD

LEA Comm. No. 88UT907.001		Page 3 of 10					
Project UTC P&W Willowpond Quarterly GW Mon.		Date 3/11/09					
Location P&W East Hartford, East Hartford, CT							
Client Pratt & Whitney Division - JTot							
pH Meter/Serial # 99K0055AB/05F1549/01C0979AA							
	Time	pH 4.01	pH 7.00	pH 10.01	Spec. Cond.	ORP	DO %
Initial Calibration	0800	✓	✓	✓	✓	✓	100.2/99.8/99.9
Calibration Check							
Calibration Check							
Turbidity Meter/Serial # 3522/TURB6/3521							
	Time	0 NTU	20 NTU	100 NTU	800 NTU		
Initial Calibration	0800	✓	✓	✓	✓		
Calibration Check							
Calibration Check							
PID Meter/Serial # 3053							
	Time	Standard	Meter Reading	Zero with			
Initial Calibration	0800	100	100	Background			
Calibration Check							
Calibration Check							
Balance/Serial #							
	Time	Standard	Balance				
Initial Calibration							
Calibration Check							
Calibration Check							
Comments							
Field Personnel C. Scott Brown Luke Chmielecki							
Nate Emmons							
Signature							



LEA Comm. No.	88UT907.001
Project	UTC P&W Willowpond Quarterly GW Mon.
Location	P&W East Hartford, East Hartford, CT
Client	Pratt & Whitney Division - JTot

Page 4 of 10  
Date 3 / 11 / 09

Field Personnel	C. Scott Brown	Luke Chmielecki	<i>Signature</i>
	Nate Emmons		





LEA Comm. No.	88UT907.001
Project	UTC P&W Willowpond Quarterly GW Mon.
Location	P&W East Hartford, East Hartford, CT
Client	Pratt & Whitney Division - JTot

Page 5 of 10  
Date 3 / 11 / 09  
Sample Time 10 : 05

Monitoring Well Number WT-MW-50 Sample Number(s) 1117655 1117655 of  
1117661 1117661 of

Depth of Well 5.23 Reference Used TOR  
 Depth to Water 1.81 PID/FID Reading 0.0  
 Height of Column 3.42 Interface Yes / No If yes, Depth            Lighter / Heavier             
 Well Casing Diameter 2" Material PVC General Condition OK Bad  
 Protector Road Box / Stickup Casing Secure ☒ ☐  
 Ground to Reference            Collar Intact ☒ ☐  
 Comments            Cover Locked ☒ ☐  
 Other (describe)            ☐ ☐

[illegible]

Development Method Peristaltic Pump / Bailer / Inertial Pump / Other


**Sample Field Treatment** *If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!*

Field Decontamination? Yes / (No) If Yes, with what?

Waste Container ID 707307

Additional Comments	Duplicate Sample Taken
---------------------	------------------------

Field Personnel	<u>C. Scott Brown</u>	<u>Luke Chmielecki</u>
	Nate Emmons	

Signature 



Loureiro Engineering Associates, Inc.

## FIELD SAMPLING RECORD

## LOW FLOW WELL SAMPLE

LEA Comm. No. 88UT907.001 Page 6 of 10  
 Project UTC P&W Willowpond Quarterly GW Mon. Date 3/11/09  
 Location P&W East Hartford, East Hartford, CT Sample Time 10:55  
 Client Pratt & Whitney Division - JTot

Monitoring Well Number WT-MW-57 Sample Number(s) 1117652 1117652 w

## Initial Field Data and Measurements

Depth of Well 17.90 Reference Used T of C  
 Depth to Water 10.72 PID/FID Reading  
 Height of Column Interface Yes (No) If yes, Depth Lighter / Heavier  
 Well Casing Diameter 1 1/2 Material PVC General Condition OK Bad  
 Protector Road Box / Stickup Casing Secure  
 Ground to Reference Collar Intact  
 Comments Cover Locked  
 Other (describe)

## Development Information

Parameter Time	Depth to Water	Pump Setting	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	Comment
9:00	10.72	300	100								Purging
9:20	10.87			2	11.38	3371	6.00	145.7	3.25	67.7	
9:30	10.91			3	11.35	3100	6.00	134.8	2.60	49.6	
9:40	11.02			4	11.08	2870	6.01	122.5	1.31	32.4	
9:50	11.07			5	11.07	2815	6.01	119.0	1.20	22.3	
10:00	11.07			6	11.02	2753	6.02	115.3	1.16	16.0	
10:10	11.08			7	11.03	2660	6.02	111.5	1.04	11.4	
10:20	11.08			8	11.10	2600	6.03	107.0	1.01	7.78	
10:30	11.08			9	11.20	2590	6.04	102.2	.81	5.65	
10:40	11.08			10	11.18	2581	6.04	100.1	.77	3.59	
10:45	11.08			10.5	11.16	2579	6.05	99.8	.81	3.47	
10:50	11.08			11	11.16	2574	6.04	99.7	.80	3.50	
10:55	11.08			11.5	11.17	2580	6.04	99.7	.80	3.32	
sample											

Development Method Peristaltic Pump / Bailer / Inertial Pump / Other

Sample Field Treatment If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!

Field Decontamination? Yes No If Yes, with what? Meth on WLI  
 Waste Container ID 707307

## Additional Comments

Field Personnel C. Scott Brown Luke Chmielecki Signature Nate Emmons  
 Nate Emmons

**FIELD SAMPLING RECORD**  
**LOW FLOW WELL SAMPLE**

LEA Comm. No.	88UT907.001	Page <u>7</u> of <u>10</u>
Project	UTC P&W Willowpond Quarterly GW Mon.	Date <u>3/11/09</u>
Location	P&W East Hartford, East Hartford, CT	Sample Time <u>12:30</u>
Client	Pratt & Whitney Division - JTot	

Monitoring Well Number WT-MW-40 Sample Number(s) 1117656 1117656uf

### Initial Field Data and Measurements

Depth of Well	<u>17.60</u>	Reference Used	<u>TOR</u>	
Depth to Water	<u>11.70</u>	PID/FID Reading	<u>0.0</u>	
Height of Column	<u>5.90</u>	Interface	Yes / No	If yes, Depth _____ Lighter / Heavier
Well Casing Diameter	<u>1/2"</u>	Material	<u>Pvc</u>	General Condition
Protector	<u>Road Box / Stickup</u>			OK Bad
Ground to Reference				Casing Secure ✓
Comments				Collar Intact ✓
				Cover Locked ✓
				Other (describe)

### Development Information


[illegible]Development Method ☒ Peristaltic Pump ☐ Bailer ☐ Inertial Pump ☐ Other

**Sample Field Treatment** *If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!*

Field Decontamination? Yes ☒ No ☐ If Yes, with what?

Waste Container ID 707307

### Additional Comments

Field Personnel	C. Scott Brown Nate Emmons	Luke Chmielecki	<i>Signature</i> 
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## FIELD SAMPLING RECORD

Loureiro Engineering Associates, Inc.

### LOW FLOW WELL SAMPLE

LEA Comm. No.	88UT907.001	Page <u>8</u> of <u>10</u>
Project	UTC P&W Willowpond Quarterly GW Mon.	Date <u>3/11/09</u>
Location	P&W East Hartford, East Hartford, CT	Sample Time <u>13:35</u>
Client	Pratt & Whitney Division - JTot	

Monitoring Well Number WT-MW-58 Sample Number(s) 1117653 1117653 of

### Initial Field Data and Measurements

Initial Field Data and Measurements

Depth of Well 17.55 Reference Used T of C

Depth to Water 10.87 PID/FID Reading \_\_\_\_\_

Height of Column \_\_\_\_\_ Interface Yes (No) If yes, Depth \_\_\_\_\_ Lighter / Heavier \_\_\_\_\_

Well Casing Diameter 1 1/2 Material PVC General Condition OK \_\_\_\_\_ Bad \_\_\_\_\_

Protector Road Box / Stickup Casing Secure ☒ \_\_\_\_\_

Ground to Reference \_\_\_\_\_ Collar Intact ☒ \_\_\_\_\_

Comments \_\_\_\_\_ Cover Locked ☒ \_\_\_\_\_

Other (describe) \_\_\_\_\_

### Development Information

[illegible]Development Method Peristaltic Pump / Bailer / Inertial Pump / Other

**Sample Field Treatment** *If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!*

Field Decontamination? Yes / No If Yes, with what?

Waste Container ID 707307

### Additional Comments

Field Personnel	C. Scott Brown Nate Emmons	Luke Chmielecki	Signature <i>Nate Emmons</i>
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Loureiro Engineering Associates, Inc.





Loureiro Engineering Associates, Inc.

## FIELD SAMPLING RECORD

## LOW FLOW WELL SAMPLE

LEA Comm. No. 88UT907.001 Page 10 of 10  
 Project UTC P&W Willowpond Quarterly GW Mon. Date 3/11/09  
 Location P&W East Hartford, East Hartford, CT Sample Time 15:20  
 Client Pratt & Whitney Division - JTot

Monitoring Well Number WT-MW-59 Sample Number(s) 1117654 1117654 of

## Initial Field Data and Measurements

Depth of Well 11.45 Reference Used TafC  
 Depth to Water 11.45 PID/FID Reading 0  
 Height of Column 1 1/2" Interface Yes / No If yes, Depth Lighter / Heavier  
 Well Casing Diameter 1 1/2" Material PVC General Condition OK Bad  
 Protector Road Box Stickup Casing Secure ✓  
 Ground to Reference ✓ Collar Intact ✓  
 Comments ✓ Cover Locked ✓  
 Other (describe)

## Development Information

Parameter	Depth to Water	Pump Setting	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	Comment
Time											
14:00	11.45	300	100								pumping
14:20	11.71			2	12.13	3683	6.59	26.8	2.94	23.4	
14:30	11.70			3	12.15	3530	6.57	19.3	1.76	18.1	
14:40	11.80			4	12.18	3479	6.55	10.6	0.61	12.1	
15:00	11.80			6	12.25	3417	6.55	8.1	0.45	7.99	
15:10	11.80			7	12.16	3400	6.55	7.6	0.39	6.87	
15:15	11.80			7.5	12.18	3498	6.55	7.6	0.36	5.77	
15:20	11.80			8	12.17	3994	6.55	7.7	0.38	5.21	
Sample											

Development Method Peristaltic Pump / Bailer / Inertial Pump / Other

Sample Field Treatment *If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!*

Field Decontamination? Yes / No If Yes, with what? Meth on WLI  
 Waste Container ID 707307

## Additional Comments

Field Personnel C. Scott Brown Luke Chmielecki Signature Nate Emmons  
Nate Emmons



Laboratories

# CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE

MARLBOROUGH, MA 01752

TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:

ACCUTEST QUOTE #:

X82/2009-453

CLIENT INFORMATION		FACILITY INFORMATION		ANALYTICAL INFORMATION										MATRIX CODES			
NAME LEA		PROJECT NAME Willow Pond Quarterly GW		VOCs 82603 CT ETPH PCBs 9082 Total PCPA & Cu, Ni, Zn										DW - DRINKING WATER			
ADDRESS 100 Northwest Drive		LOCATION PWEH, CT												GW - GROUND WATER			
CITY, STATE, ZIP Plainville CT 06062		PROJECT NO. 88UT907.001												WW - WASTE WATER			
SEND REPORT TO: PHONE # 860-747-6181		FAX #												SO - SOIL			
ACCUTEST SAMPLE #		FIELD ID / POINT OF COLLECTION		COLLECTION		PRESERVATION		LAB USE ONLY									
				DATE	TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	HCl	NaOH	HNO3	H2SO4	NONE	ICE			
✓	1117655	3-11-09	1005	LC	GW	2	X							X	X		
✓	1117655		1005			4								X	X		
✓	1117655uf		1005			1				X				X		X	
✓	1117656		1230			2	X							X	X		
✓	1117656		1230			4								X	X		
✓	1117656uf		1230			1				X				X		X	
✓	1117657		1410			2	X							X	X		
✓	1117657		1410			4								X	X		
✓	1117657uf		1410			1				X				X		X	
✓	1117661		1005			2	X							X	X		
✓	1117661	3-11-09	1005	LC	GW	4								X	X		
DATA TURNAROUND INFORMATION		DATA DELIVERABLE INFORMATION		COMMENTS/REMARKS													
<input checked="" type="checkbox"/> 14 DAYS STANDARD <input type="checkbox"/> 7 DAYS RUSH <input type="checkbox"/> 48 HOUR EMERGENCY <input type="checkbox"/> OTHER		<input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> COMMERCIAL "B" <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> STATE FORMS <input type="checkbox"/> OTHER (SPECIFY)		Use CT RCP analytical list Provide CT RCP Report													
14 DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED																	
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY																	
RELINQUISHED BY SAMPLER:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:							
1. [Signature]		3-11-09 15:50		1. [Signature]		2.				2.							
RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:							
3.				3.		4.				4.							
RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		SEAL #		PRESERVE WHERE APPLICABLE		ON ICE		TEMPERATURE					
5.				5.				<input type="checkbox"/>		<input type="checkbox"/>		C					



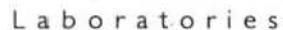
2/3

TEL: 508-481-6200 • FAX: 508-481-7753

KB2/2009-453

[illegible]





## CHAIN OF CUSTODY

TEL: 508-481-6200 • FAX: 508-481-7753

KB2/2009-453

CLIENT INFORMATION			FACILITY INFORMATION			ANALYTICAL INFORMATION										MATRIX CODES
NAME LEA			PROJECT NAME Willow Pond GW Monitoring			VOC Metals ACRA8+Cap/Pl/Zn CT ETPH PCBs										DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OI - OIL LIQ - OTHER LIQUID SOL - OTHER SOLID
ADDRESS 100 Northwest Dr			LOCATION P+H East Hartford													
CITY, STATE ZIP Plainville CT 06062			PROJECT NO. 88UT 907													
SEND REPORT TO: PHONE # Robin McKinney (860) 747-6181			FAX #													
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION		COLLECTION		MATRIX	# OF BOTTLES	PRESERVATION					LAB USE ONLY				
			DATE	TIME	SAMPLED BY:		HCl	NaOH	HNO3	H2SO4	NONE		ICE			
✓	1117652	6/11/09	10:55	AK	GW	6	2				4	6	X	X	X	
✓	1117652 of		10:55			1			1		1		X			
✓	1117653		13:35			6	2				4	6	X	X	X	
✓	1117653 of		13:35			1			1		1		X			
✓	1117654		15:20			6	2				4	6	X	X	X	
✓	1117654 of		15:20	AL	GW	1			1		1		X			
DATA TURNAROUND INFORMATION			DATA DELIVERABLE INFORMATION			COMMENTS/REMARKS										
<input checked="" type="checkbox"/> 14 DAYS STANDARD <input type="checkbox"/> 7 DAYS RUSH <input type="checkbox"/> 48 HOUR EMERGENCY <input type="checkbox"/> OTHER			<input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> COMMERCIAL "B" <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> STATE FORMS <input type="checkbox"/> OTHER (SPECIFY)			Provide CT RCP Report use CT RCP Analytical list										
14 DAY TURNAROUND HARDCOPY, EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED																
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY																
RELINQUISHED BY SAMPLER:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:						
1. [Signature]		3/11/09 15:40		1. [Signature]		2.				2.						
RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:						
3.				3.		4.				4.						
RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		SEAL #		PRESERVE WHERE APPLICABLE		ON ICE		TEMPERATURE				
5.				5.				<input type="checkbox"/>		<input type="checkbox"/>		C				



# DAILY FIELD REPORT

Loureiro Engineering Associates, Inc.

LEA Comm. No. 88UT907.001  
Project UTC P&W Willowpond Quarterly GW Mon.  
Location P&W East Hartford, East Hartford, CT  
Client Pratt & Whitney Division - JTot

Page 1 of 12  
Date 6/4/09

Arrived at Site 9:20 Departed from Site 16:05 Vehicle GW van  
Site Activities Odometer (Start) 14483 Return 14546

- |  |   |
|--|---|
| <input type="checkbox"/> Soil Sampling                   | <input type="checkbox"/> Geoprobe Work    |
| <input checked="" type="checkbox"/> Groundwater Sampling | <input type="checkbox"/> Concrete Coring  |
| <input type="checkbox"/> Surface Water Sampling          | <input type="checkbox"/> Construction     |
| <input type="checkbox"/> Vapor/Air Sampling              | <input type="checkbox"/> Waste Management |
| <input type="checkbox"/> Concrete Sampling               | <input type="checkbox"/> Inspection       |
| <input type="checkbox"/> Other Sampling                  | <input type="checkbox"/> Site Walk Over   |
| <input type="checkbox"/> Other Sampling                  | <input type="checkbox"/> Surveying        |
| <input type="checkbox"/> Well Development                | <input type="checkbox"/> Other (Describe) |

## Current Project Information

Last Sample Number Used  
Last Location ID Used  
Current Location (if not complete) ON SITE  
Sampling for VOCs, TPH, Metals, PCBs  
Laboratories used ALUTEST  
Paperwork & Equipment left at/in OFFICE  
Site Contact  
Contractors on Site LEA

## Non-productive Time

- |  |  |
|--|--|
| <input type="checkbox"/> None                | <input type="checkbox"/> Weather                     |
| <input type="checkbox"/> Equipment Breakdown | <input type="checkbox"/> Missing Equipment           |
| <input type="checkbox"/> Late                | <input checked="" type="checkbox"/> Other (Describe) |

Time and place to meet contractors

## Quality Assurance Checks

Yes	N/A	No
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Sample labels complete  
Sample/cooler seals OK  
All samples obtained  
Chains of custody  
All forms/logs complete  
Site condition OK  
Site H&S Plan on site  
Instruments calibrated

Faulty eq pump

## Residuals Disposition

Item	Approx. Amount	Container ID
Soil/Solid		
Groundwater	71.3L	714130
Decon Fluid		
PPE		
Other		

## Weather Conditions

Temperature 80 Precipitation Wind  
Comments

Checked By

Robin McKenney

## Expendable Items Used

Qty	Item	LEA Number
	Bailer, Disposable (specify size)	090
	Drum, Closed Top 55 Gallon	086
1	Filter, In Line	024
3	Miscellaneous Health & Safety Items	060
	Tubing, 1/2", NOS	007
	Tubing, 3/8", NOS	008
	Water, Distilled	025
105 ft	1/2" tubing	
70 inches	soft tubing	
6	batteries	

## Equipment Used

Qty	Item	LEA Number
	Generator 3500 Watt	153
	Meter, Conductivity	022
	Meter, pH/Temp	021
1	Miscellaneous Small Tools & Equipment	152
	Pump, Grundfos	073
3	Pump, Peristaltic (spec. Master or Isco)	040
	Pump, Submersible	201
	Pump, Watera	038
3	Turbidimeter	023
1	VOC Analyzer, Photovac 2020 (PID)	012
4	Water Level Indicator	028
3	Water Quality Meter w/Flow Cell (Rental)	070

Field Personnel

Nate Emmons

Sophia Kim

Rich D'Amico

Signature



Loureiro Engineering Associates, Inc.

# FIELD SAMPLING RECORD LOW FLOW WELL SAMPLE

LEA Comm. No. 88UT907.001  
Project UTC P&W Willowpond Quarterly GW Mon.  
Location P&W East Hartford, East Hartford, CT  
Client Pratt & Whitney Division - JTot

Page 5 of 12  
Date 6/4/09  
Sample Time 16:38

Monitoring Well Number WT-MW-47 Sample Number(s) 1123429

1123429-F

## Initial Field Data and Measurements

Depth of Well N/A Reference Used TOR  
Depth to Water 8.6' PID/FID Reading N/A  
Height of Column N/A Interface N/A Yes/No If yes, Depth Lighter/Heavier  
Well Casing Diameter 1/2" Material PVC General Condition OK Bad  
Protector Road Box / Stickup Casing Secure ☒ ☒  
Ground to Reference ☒ Collar Intact ☒  
Comments ☒ Cover Locked ☒  
Other (describe)

## Development Information

Parameter	Depth to Water	Pump Setting	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	Comment
Time											
0925	N/A	350	100	0	—	—	—	—	—	—	Initial
0930					13.78	588	6.28	258.4	5.40	24.6	
0940					13.92	590	6.01	279.4	4.84	10.2	
0950					14.16	582	5.24	291.8	4.28	4.8	
1000					14.91	584	5.25	317.8	4.32	3.1	
1010					14.15	578	4.66	330.1	4.09	2.7	
1020					14.31	577	4.58	340.1	4.05	2.3	
1025					14.75	577	4.54	355.1	4.06	1.8	
1030					14.28	578	4.55	357.4	4.04	2.1	
1035				7	14.21	577	4.55	355.6	4.02	1.9	Sample

Development Method Peristaltic Pump / Bailer / Inertial Pump / Other

Sample Field Treatment If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!

Field Decontamination? Yes/No If Yes, with what?

Waste Container ID 714130

## Additional Comments

Due to diameter of well unable to attain depth to bottom of water during pumping

Field Personnel Nate Emmons Sophia Kim  
Rich D'Amico

Signature



Loureiro Engineering Associates, Inc.

## FIELD SAMPLING RECORD

## LOW FLOW WELL SAMPLE

LEA Comm. No. 88UT907.001 Page 6 of 12  
 Project UTC P&W Willowpond Quarterly GW Mon. Date 6/4/09  
 Location P&W East Hartford, East Hartford, CT Sample Time 2:00  
 Client Pratt & Whitney Division - JTot

Monitoring Well Number WT-MW-48 Sample Number(s) 1123432 1123432 of

## Initial Field Data and Measurements

Depth of Well 7.50' Reference Used T of C  
 Depth to Water 4.20' PID/FID Reading NM  
 Height of Column 3.24' Interface Yes / No If yes, Depth Lighter / Heavier  
 Well Casing Diameter 1.5" Material PVC General Condition OK Bad  
 Protector Road Box / Stuckup Casing Secure  
 Ground to Reference NM Collar Intact  
 Comments Cover Locked  
 Other (describe)

## Development Information

Parameter	Depth to Water	Pump Setting	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	Comment
Time											
9:30	4.26	600	250	0							PURGING
9:40	6.01	STOPPED									
10:00	4.40	300	130	5							PURGING
10:20	4.85		130	6.2	16.95	656	6.71	-174.2	2.23	25.2	
10:35	5.00		180	7.4	17.26	665	6.67	-175.9	3.25	20.3	
10:45			180	8.6	17.37	664	6.65	-173.3	3.42	17.2	
10:55			120	9.8	18.27	662	6.65	-174.9	3.54	16.4	
11:05			120	11.0	19.14	654	6.72	-178.9	2.62	13.5	
11:15				12.2	19.08	663	6.61	-174.0	2.99	12.4	
11:25				13.4	19.21	665	6.65	-178.9	2.76	12.8	
11:35				14.6	20.15	665	6.69	-183.3	2.21	12.9	
11:40				15.2	20.38	665	6.57	-176.3	2.45	18.9	
11:50				15.8	20.75	658	6.54	-172.5	2.43	14.6	
11:55				16.4	20.86	663	6.54	-176.2	2.43	17.0	
12:00				17.0	20.66	668	6.54	-176.5	2.44	14.1	SAMPLE

Development Method Peristaltic Pump / Bailer / Inertial Pump / Other

Sample Field Treatment If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!

Field Decontamination? Yes (No) If Yes, with what?

Waste Container ID 714130

Additional Comments \* PUMP PIECE ON PUMP BROKE WHEN THE 300 RPM PART WAS SO LOW RPM SETTING NOT USABLE. ATTEMPTED LOW FLOW ON 600 RPM BUT DROVDOWN WAS TOO HIGH. CONTACTED WATE TO EXCHANGE PUMPS b/c HE WAS TAKING WATER LEVELS.

Field Personnel Nate Emmons  
 Rich D'Amico

Sophia Kim

Signature

*[Signature]*

10 µm FILTER USED  
 Filmy oil layer on top of samples





Loureiro Engineering Associates, Inc.

## FIELD SAMPLING RECORD

### LOW FLOW WELL SAMPLE

LEA Comm. No. 88UT907.001 Page 7 of 12  
Project UTC P&W Willowpond Quarterly GW Mon. Date 6/14/09  
Location P&W East Hartford, East Hartford, CT Sample Time 12:30  
Client Pratt & Whitney Division - JTot

Monitoring Well Number WT-MW-46 Sample Number(s) 1123430 1123430.6

#### Initial Field Data and Measurements

Depth of Well 12.7 Reference Used TOC  
Depth to Water 5.7 PID/FID Reading N/A  
Height of Column 2.0 Interface N/A Yes / No If yes, Depth Lighter / Heavier  
Well Casing Diameter 1/2" Material PVC General Condition OK Bad  
Protector Road Box / Stickup Casing Secure ☒  
Ground to Reference ☒  
Comments ☒ Cover Locked ☒  
Other (describe)

#### Development Information

Parameter Time	Depth to Water	Pump Setting	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	Comment
1120	N/A	350	100	0							Initial
1125					19.05	315	5.38	310.6	3.62	30.4	
1135					15.17	186	3.78	414.6	3.18	5.8	
1145					15.09	185	3.63	439.6	3.02	5.1	
1155					15.82	183	3.74	466.5	3.06	4.3	
1205					15.83	182	3.96	454.1	3.05	3.7	
1215					15.86	181	3.97	490.1	3.05	2.9	
1220					15.85	182	3.96	481.2	3.04	2.1	
1225					15.86	181	3.46	482.4	3.05	1.8	
1230				7	15.85	182	3.97	481.3	3.02	2.7	Sample

Development Method Peristaltic Pump / Bailer / Inertial Pump / Other

Sample Field Treatment If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!

Field Decontamination? Yes No If Yes, with what?

Waste Container ID 714130

#### Additional Comments

Due to well casing diameter no bottom water to be

Field Personnel Nate Emmons Sophia Kim

Rich D'Amico

Signature

**FIELD SAMPLING RECORD**  
**LOW FLOW WELL SAMPLE**

LEA Comm. No.	88UT907.001	Page	8 of 12
Project	UTC P&W Willowpond Quarterly GW Mon.	Date	6/4/09
Location	P&W East Hartford, East Hartford, CT	Sample Time	12:50
Client	Pratt & Whitney Division - JTot		

Monitoring Well Number WT-mw-45 Sample Number(s) 1123426 1123426 UF

### Initial Field Data and Measurements

Depth of Well \_\_\_\_\_  
 Depth to Water 8.44  
 Height of Column \_\_\_\_\_  
 Well Casing Diameter 1/2"  
 Protector Road Box / Stickup  
 Ground to Reference \_\_\_\_\_  
 Comments \_\_\_\_\_

Reference Used T of C  
 PID/FID Reading \_\_\_\_\_  
 Interface Yes No If yes, Depth \_\_\_\_\_ Lighter / Heavier \_\_\_\_\_  
 Material PVC  
 General Condition  
 Casing Secure ☒ OK ☐ Bad  
 Collar Intact ☒  
 Cover Locked ☒  
 Other (describe) \_\_\_\_\_

### Development Information

[illegible]

Development Method	<u>Peristaltic Pump</u>	Bailer / Inertial Pump / Other
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**Sample Field Treatment** *If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!*

Field Decontamination? Yes / No If Yes, with what? \_\_\_\_\_  
Waste Container ID 714130

Additional Comments Unable to Continuously Monitor water level due to well diameter.

Field Personnel	Nate Emmons Rich D'Amico	Sophia Kim	Signature <i>Nate Emmons</i>
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Loureiro Engineering Associates, Inc.

## FIELD SAMPLING RECORD LOW FLOW WELL SAMPLE

LEA Comm. No. 88UT907.001  
Project UTC P&W Willowpond Quarterly GW Mon.  
Location P&W East Hartford, East Hartford, CT  
Client Pratt & Whitney Division - JTot

Page 9 of 12  
Date 6/4/09  
Sample Time 14:35

Monitoring Well Number WFMW-49 Sample Number(s) 1123431

1123431 F

### Initial Field Data and Measurements

Depth of Well 7.5' Reference Used TOR  
Depth to Water 2.4' PID/FID Reading N/A  
Height of Column 5.1' Interface N/A Yes / No If yes, Depth Lighter / Heavier  
Well Casing Diameter 2" Material PVC General Condition OK Bad  
Protector Road Box / Stickup Casing Secure X  
Ground to Reference X  
Comments X Cover Locked X  
Other (describe)

### Development Information

Parameter Time	Depth to Water	Pump Setting	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	Comment
1315	2.4	350	100	0							Initial
1320	2.6				19.22	328	4.90	275.9	2.94	15.4	
1330	2.6				20.27	324	5.14	242.6	4.93	37.8	
1340	2.8				16.30	322	4.38	277.8	1.58	22.1	
1350	2.8				16.41	326	4.78	260.1	1.09	15.7	
1400	2.8				16.42	328	4.91	257.5	0.51	10.4	
1410	2.8				16.45	329	5.02	250.6	0.32	4.8	
1420	2.9				16.63	330	5.10	246.0	0.27	3.4	
1425	2.8				16.61	331	5.15	246.7	0.24	3.1	
1430	2.8				16.67	330	5.14	247.8	0.30	4.2	
1435	2.9			8	16.59	329	5.14	244.1	0.31	3.8	Sample

Development Method Peristaltic Pump Bailer / Inertial Pump / Other

Sample Field Treatment If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!

Field Decontamination? Yes (No) If Yes, with what?  
Waste Container ID 714130

### Additional Comments

3.4' to road  
Field Personnel Nate Emmens  
Rich D'Amico

Sophia Kim

Signature



Loureiro Engineering Associates, Inc.

# FIELD SAMPLING RECORD

## LOW FLOW WELL SAMPLE

LEA Comm. No. 88UT907.001  
 Project UTC P&W Willowpond Quarterly GW Mon.  
 Location P&W East Hartford, East Hartford, CT  
 Client Pratt & Whitney Division - JTot

Page 10 of 12  
 Date 6/4/09  
 Sample Time 14:45

Monitoring Well Number WT-MW-57 Sample Number(s) 1123433 1123433vf

## Initial Field Data and Measurements

Depth of Well 18.10' Reference Used TDE C  
 Depth to Water 11.00' PID/FID Reading NM  
 Height of Column 7.10' Interface Yes / No If yes, Depth Lighter / Heavier  
 Well Casing Diameter 1.5" Material PVC General Condition OK Bad  
 Protector Road Box / Stickup Casing Secure  
 Ground to Reference NM Collar Intact  
 Comments Cover Locked  
 Other (describe)

## Development Information

Parameter Time	Depth to Water	Pump Setting	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	Comment
12:55	11.00	300	150	0	1						PURGING
13:15	11.40		120	3	16.92	2906	5.95	-17.1	1.78	54.6	RW
13:25	11.40			4.2	16.91	2810	5.66	-11.3	2.51	36.1	
13:35				5.4	16.91	2727	5.39	-6.2	2.97	29.8	
13:45				6.6	16.91	2637	5.26	0.7	3.60	21.7	
13:55				7.8	17.07	2629	5.16	2.2	3.92	19.5	9.04
14:05				9.0	17.25	2547	5.00	4.7	4.15	6.22	
14:15				10.2	17.19	2531	4.88	6.4	4.17	3.07	
14:20				10.8	17.32	2478	4.81	7.5	4.20	2.96	
14:25				11.4	17.27	2490	4.70	9.6	4.35	3.07	
14:30				12.0	17.36	2444	4.56	13.9	4.50	2.61	
14:35				12.6	17.36	2475	4.42	17.6	4.62	2.32	
14:40				13.2	17.34	2462	4.35	19.6	4.66	2.16	
14:45				13.8	17.36	2466	4.36	19.4	4.73	2.30	SAMPLE

Development Method Peristaltic Pump / Bailer / Inertial Pump / Other

Sample Field Treatment If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!

Field Decontamination? Yes / No If Yes, with what?  
 Waste Container ID 714130

Additional Comments UNDER WATER → DUMPED OUT BEFORE TAKING  
 WATER LEVEL + ~~SAMPLE~~ PURGING

Field Personnel Nate Emmons Sophia Kim  
 Rich D'Amico

Signature







Loureiro Engineering Associates, Inc.

# FIELD SAMPLING RECORD MONITORING WELL INVENTORY

Job No. 88UT907.001 Page 12 of 12  
Project UTC P&W Willowpond Quarterly GW Mon. Date 6/4/09  
Location P&W East Hartford, East Hartford, CT  
Client Pratt & Whitney Division - JTot

Sample ID	Location ID	Time	Predicted Depth of Well to Water	Actual Depth of Well to Water	PID/FID	Reference Elevation	Comments
2232532	WT-MW-43	8:40		7.59			
2232533	WT-MW-42	10:25		3.25			
2232534	WT-MW-41	10:30		4.80			
2232535	WT-MW-44			4.35			1/2" Cap
2232536	Staff G			3.78			
2232537	WT-MW-50		-2.10-	2.07			
2232538	WT-MW-195R	(circled)		10.02			1/2" Cap
2232539	WT-MW-40			12.24			
2232540	WT-MW-45			8.44			
2232541	WT-MW-47			8.60			
2232542	WT-MW-48			7.50 4.26			
2232543	WT-MW-46			17.70 5.70			
2232544	WT-MW-49			7.5 2.4			
2232545	WT-MW-57			18.10 11.0			
2232546	WT-MW-58			17.75 11.15			
2232547							
2232548							
Field Personnel Nate Emmons Sophia Kim Rich D'Amico							
						Signature Nate Emmons	

# CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE  
MARLBOROUGH, MA 01752  
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:

ACCUTEST QUOTE #:

KB2/2009-453

CLIENT INFORMATION		FACILITY INFORMATION		ANALYTICAL INFORMATION										MATRIX CODES	
<b>NAME</b> LEA <b>ADDRESS</b> 100 Northwest Dr <b>CITY, STATE, ZIP</b> Plainville CT 06062 <b>SEND REPORT TO:</b> Robin McKinney <b>PHONE #</b> 860 410 3000		<b>PROJECT NAME</b> DeW East Hartford Willow Brook / Willow Pond <b>LOCATION</b> East Hartford CT <b>PROJECT NO.</b> 88WT901 <b>FAX #</b>		<b>ANALYTICAL INFORMATION</b> VOCs 8260B CT ETPH PCBs 8202 Total RCP Metals Cu, Ni, Zn HCLD										<b>MATRIX CODES</b> DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OI - OIL LIQ - OTHER LIQUID SOL - OTHER SOLID	
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION			MATRIX	# OF BOTTLES	PRESERVATION						LAB USE ONLY		
		DATE	TIME	SAMPLED BY:			HCl	NaOH	HNO3	H2SO4	NONE	Ice			
-	1123432	6/4/09	12:00	SK	GW	2	X					X	X		
-	1123432			SK		4						X	X		
-	1123432UF			SK		1			X			X			(RM)
-	1123432			SK		1			X			X			MM
-	1123433		14:45	SK		2	X					X	X		
-	1123433			SK		4						X	X		
-	1123433UF			SK		1			X			X			X
-	1123446		9:00	SK		2	X					X	X		
-	1123429		1035	LTD		2	X					X	X		
-	1123429					4						X	X		
-	1123429UF					1			X			X			X
DATA TURNAROUND INFORMATION		DATA DELIVERABLE INFORMATION				COMMENTS/REMARKS									
<input checked="" type="checkbox"/> 14 DAYS STANDARD <input type="checkbox"/> 7 DAYS RUSH <input type="checkbox"/> 48 HOUR EMERGENCY <input type="checkbox"/> OTHER		<input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> COMMERCIAL "B" <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> STATE FORMS <input type="checkbox"/> OTHER (SPECIFY)				Provide RCP analytical lists for VOCs, PCBs, and provide CT RCP Report									
14 DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED															
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY															
RELINQUISHED BY SAMPLER:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:					
1. [Signature]		6/4/09 1600		1. [Signature]		2. [Signature]				2. [Signature]					
RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:					
3. [Signature]				3. [Signature]		4. [Signature]				4. [Signature]					
RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		SEAL #		PRESERVE WHERE APPLICABLE		ON ICE		TEMPERATURE			
5. [Signature]				5. [Signature]								C			

# CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE  
MARLBOROUGH, MA 01752  
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:

ACCUTEST QUOTE #:

KB2/2009-453

CLIENT INFORMATION			FACILITY INFORMATION				ANALYTICAL INFORMATION										MATRIX CODES	
NAME: <u>LEA</u> ADDRESS: <u>100 Northwest Dr</u> <u>Plymouth</u> <u>CT</u> <u>06062</u> CITY: STATE: ZIP: SEND REPORT TO: <u>Robin McKinney</u> PHONE #: <u>860 410 3000</u>			PROJECT NAME: <u>P4W East Hartford Willow Brook/William Pond</u> LOCATION: <u>East Hartford, CT</u> PROJECT NO.: <u>88WT907</u> FAX #:				VOCs 824013 CT ETPH PEBS 8092 TOTAL BCRD 5 MINUTE C/N/20 HOLD										DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OI - OIL LIQ - OTHER LIQUID SOL - OTHER SOLID	
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION			MATRIX	# OF BOTTLES	PRESERVATION						LAB USE ONLY					
		DATE	TIME	SAMPLED BY:			HCl	NaOH	HNO3	H2SO4	NONE	IC						
-	1123430	6/4/09	1730	15P	GW	2	X					X	X					
-	1123430					4						X	X					
-	1123430.F					1		X				X		X				
-	1123431		1435			2	X					X						
-	1123431					4						X	X					
-	1123431.F					1		X				X		X				
-	1123426		12:50	NE		2	X					X		(RM)				
-	1123426					4						X	X					
-	1123426					1		X				X		X				
-	1123426					1						X		X				
-	1123426		1520			2	X					X	X					
-	1123426	6/4/09	1520		GW	4						X	X					
DATA TURNAROUND INFORMATION			DATA DELIVERABLE INFORMATION				COMMENTS/REMARKS											
<input checked="" type="checkbox"/> 14 DAYS STANDARD <input type="checkbox"/> 7 DAYS RUSH <input type="checkbox"/> 48 HOUR EMERGENCY <input type="checkbox"/> OTHER 14 DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED			APPROVED BY: _____ <input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> COMMERCIAL "B" <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> STATE FORMS <input type="checkbox"/> OTHER (SPECIFY) _____				Provide CT RCP analytical lists for VOCs, PEBS, and provide CT RCP Report											
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY																		
RELINQUISHED BY: 1. <u>[Signature]</u>		DATE TIME: <u>6/4/09 1600</u>		RECEIVED BY: 1. <u>[Signature]</u>		RELINQUISHED BY: 2. _____		DATE TIME: _____		RECEIVED BY: 2. _____								
RELINQUISHED BY: 3. _____		DATE TIME: _____		RECEIVED BY: 3. _____		RELINQUISHED BY: 4. _____		DATE TIME: _____		RECEIVED BY: 4. _____								
RELINQUISHED BY: 5. _____		DATE TIME: _____		RECEIVED BY: 5. _____		SEAL # _____		PRESERVE WHERE APPLICABLE <input type="checkbox"/>		ON ICE <input type="checkbox"/>		TEMPERATURE _____ C						







# DAILY FIELD REPORT

Loureiro Engineering Associates, Inc.

<b>LEA Comm. No.</b> 88UT907.001		Page <u>1</u> of <u>12</u>			
<b>Project</b> UTC P&W Willowpond Quarterly GW Mon.		Date <u>6/5/09</u>			
<b>Location</b> P&W East Hartford, East Hartford, CT					
<b>Client</b> Pratt & Whitney Division - JTot					
<b>Arrived at Site</b> <u>8:00</u>		<b>Departed from Site</b> <u>13:50</u>			
<b>Site Activities</b>		<b>Vehicle</b> <u>ST- GW Van</u>			
<input type="checkbox"/> Soil Sampling		<b>Odometer (Start)</b> _____			
<input checked="" type="checkbox"/> Groundwater Sampling		<b>Return</b> <u>RT 65 miles</u>			
<input type="checkbox"/> Surface Water Sampling					
<input type="checkbox"/> Vapor/Air Sampling					
<input type="checkbox"/> Concrete Sampling					
<input type="checkbox"/> Other Sampling					
<input type="checkbox"/> Other Sampling					
<input type="checkbox"/> Well Development					
<input type="checkbox"/> Geoprobe Work		<b>Current Project Information</b>			
<input type="checkbox"/> Concrete Coring		Last Sample Number Used <u>W23444</u>			
<input type="checkbox"/> Construction		Last Location ID Used _____			
<input type="checkbox"/> Waste Management		Current Location (if not complete) _____			
<input type="checkbox"/> Inspection		Sampling for <u>See chain</u>			
<input type="checkbox"/> Site Walk Over		Laboratories used <u>Accutest</u>			
<input type="checkbox"/> Surveying		Paperwork & Equipment left at/in <u>office</u>			
<input type="checkbox"/> Other (Describe) _____		Site Contact _____			
		Contractors on Site _____			
		Time and place to meet contractors _____			
<b>Non-productive Time</b>					
<input type="checkbox"/> None					
<input type="checkbox"/> Equipment Breakdown					
<input type="checkbox"/> Late					
<input type="checkbox"/> Weather					
<input type="checkbox"/> Missing Equipment					
<input type="checkbox"/> Other (Describe) _____					
<b>Quality Assurance Checks</b>		<b>Residuals Disposition</b>			
Yes N/A No		Item Approx. Amount Container ID			
<input checked="" type="checkbox"/> Sample labels complete		Soil/Solid _____			
<input checked="" type="checkbox"/> Sample/cooler seals OK		Groundwater <u>17 gal</u> <u>714130</u>			
<input checked="" type="checkbox"/> All samples obtained		Decon Fluid _____			
<input checked="" type="checkbox"/> Chains of custody		PPE _____			
<input checked="" type="checkbox"/> All forms/logs complete		Other _____			
<input checked="" type="checkbox"/> Site condition OK					
<input checked="" type="checkbox"/> Site H&S Plan on site					
<input checked="" type="checkbox"/> Instruments calibrated					
<b>Weather Conditions</b>					
Temperature <u>70's</u>		Precipitation <u>light rain</u> Wind <u>10-15</u>			
Comments _____					
<b>Checked By</b> <u>Robert McKinney</u>					
<b>Expendable Items Used</b>		<b>Equipment Used</b>			
Qty	Item	LEA Number	Qty	Item	LEA Number
	Bailer, Disposable (specify size)	090		Generator 3500 Watt	153
	Drum, Closed Top 55 Gallon	086		Meter, Conductivity	022
	Filter, In Line	024		<del>Meter, pH/Temp</del> <u>1st Rental</u> <u>NE</u>	021
X	Miscellaneous Health & Safety Items	060	1	Miscellaneous Small Tools & Equipment	152
	Tubing, 1/2", NOS	007		Pump, Grundfos	073
150	Tubing, 3/8", NOS <u>1/4"</u>	008	3	Pump, Peristaltic (spec. Master or Isco)	040
	Water, Distilled	025		Pump, Submersible	201
				Pump, Watera	038
			3	Turbidimeter	023
			1	VOC Analyzer, Photovac 2020 (PID)	012
			3	Water Level Indicator	028
			3	Water Quality Meter w/Flow Cell <u>(rental)</u>	070
<b>Field Personnel</b>		<b>Signature</b>			
Nate Emmons		<u>Nathan Emmons</u>			
Rich D'Amico					
Sophia Kim					



Loureiro Engineering Associates, Inc.

## DAILY FIELD REPORT

### Supplemental Sheet

Job No. 88UT907.001  
Project UTC P&W Willowpond Quarterly GW Mon.  
Location P&W East Hartford, East Hartford, CT  
Client Pratt & Whitney Division - JTot

Page 2 of 12  
Date 6/5/09

#### Description of Site Activities

8:00 On Site  
Work Plan, Calibration, Divide equipment  
8:45 Started moving equipment to locations  
2:00 Called Benny to schedule 3:00 Pick up  
2:45 finished Sampling  
3:20 Benny packed up samples  
3:30 Dump waste  
3:50 off site



Drum # 714130 is about  
Half full

Field Personnel

Nate Emmons  
Rich D'Amico

Sophia Kim

Signature

Nate Emmons







Loureiro Engineering Associates, Inc.

# DAILY FIELD REPORT CALIBRATION RECORD

Job No.	88UT907.001					Page	4 of 12
Project	UTC P&W Willowpond Quarterly GW Mon.					Date	6/5/09
Location	P&W East Hartford, East Hartford, CT						
Client	Pratt & Whitney Division - JTot						

pH Meter/Serial #		Time	pH 4.01	pH 7.00	pH 10.01	Spec. Cond.	ORP	DO
Initial Calibration	97F00206 AC	8:15	4.0	7.0	10.0	1000	109	/
Calibration Check	6100474 AB	8:15	4.0	7.0	10.0	1000	109	
Calibration Check	0280985 AB	8:15	4.0	7.0	10.0	1000	109	

Turbidity Meter/Serial #	LEA #5		0 NTU	20 NTU	100 NTU	800 NTU
Initial Calibration	3522	9:00	/	/	/	
Calibration Check	3521	9:00	/	/	/	
Calibration Check	3519	9:00	/	/	/	

PID Meter/Serial #	Time	Standard	Meter Reading	Zero with
Initial Calibration				
Calibration Check				
Calibration Check				

Balance/Serial #	Time	Standard	Balance
Initial Calibration			
Calibration Check			
Calibration Check			

Comments	
----------	--

Field Personnel	Nate Emmons	Sophia Kim	Signature
	Rich D'Amico		Nate Emmons

Loureiro Engineering Associates, Inc.



Loureiro Engineering Associates, Inc.

# FIELD SAMPLING RECORD

## LOW FLOW WELL SAMPLE

LEA Comm. No. 88UT907.001  
 Project UTC P&W Willowpond Quarterly GW Mon.  
 Location P&W East Hartford, East Hartford, CT  
 Client Pratt & Whitney Division - JTot

Page 6 of 12  
 Date 6/5/09  
 Sample Time 14:20

Monitoring Well Number WT-mw-1998 Sample Number(s) 1123437 1123437 wP

### Initial Field Data and Measurements

Depth of Well 25.20 Reference Used TOC  
 Depth to Water 10.05 PID/FID Reading  
 Height of Column Interface Yes (No) If yes, Depth Lighter / Heavier  
 Well Casing Diameter 1/2" Material PVC General Condition OK Bad  
 Protector Road Box / Stickup Casing Secure  
 Ground to Reference Collar Intact  
 Comments Cover Locked  
 Other (describe)

### Development Information

Parameter Time	Depth to Water	Pump Setting	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	Comment
13:10	10.05	300	150								Pumping
13:30			150	3	14.16	6814	6.65	46.6	13.92	7.32	
13:40			150	4.5	14.08	6697	5.99	196.0	13.56	6.41	
13:50			150	6	14.09	6509	5.88	257.0	13.49	5.22	
14:00			150	7.5	14.09	6451	5.86	279.2	13.45	4.09	
14:05			150	8.25	14.07	6447	5.85	289.3	13.50	3.85	
14:10			150	9.00	14.05	6430	5.85	290.4	13.43	3.24	
14:15			150	9.75	14.06	6448	5.85	291.6	13.34	2.76	
14:20		300	150	10.50	14.65	6439	5.84	290.8	13.39	2.36	

Development Method Peristaltic Pump / Bailer / Inertial Pump / Other

Sample Field Treatment If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!

Field Decontamination? Yes / No If Yes, with what?  
 Waste Container ID 714130

### Additional Comments

Field Personnel Nate Emmons Sophia Kim  
 Rich D'Amico Signature Nate Emmons



Loureiro Engineering Associates, Inc.

# FIELD SAMPLING RECORD

## LOW FLOW WELL SAMPLE

LEA Comm. No. **88UT907.001** Page **7** of **12**  
 Project **UTC P&W Willowpond Quarterly GW Mon.** Date **6/5/09**  
 Location **P&W East Hartford, East Hartford, CT** Sample Time **10:45**  
 Client **Pratt & Whitney Division - JTot**

Monitoring Well Number **WT-mw-059** Sample Number(s) **1123427** **1123427 JF**

**Initial Field Data and Measurements**

Depth of Well **17.45** Reference Used **TJC**  
 Depth to Water **11.86** PID/FID Reading \_\_\_\_\_  
 Height of Column \_\_\_\_\_ Interface **Yes / No** If yes, Depth \_\_\_\_\_ Lighter / Heavier \_\_\_\_\_  
 Well Casing Diameter **1 1/2** Material **PVC** General Condition **OK** Bad \_\_\_\_\_  
 Protector **Road Box** Stickup Casing Secure ☒  
 Ground to Reference \_\_\_\_\_ Collar Intact ☒  
 Comments \_\_\_\_\_ Cover Locked ☒  
 Other (describe) \_\_\_\_\_

**Development Information**

Parameter Time	Depth to Water	Pump Setting	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	Comment
9:30	11.86	300	150								Pumping
9:50	12.05		150	3	14.79	3925	5.60	20.8	0.70	22.2	
10:00	12.06		100	4	14.85	3705	5.52	50.3	0.69	10.8	
10:10	12.06		100	5	14.70	3648	5.39	104.1	0.65	6.62	
10:20	12.06		100	6	14.72	3644	5.40	116.4	0.67	6.52	
10:25	12.06		100	6.5	14.80	3649	5.39	114.5	0.68	6.38	
10:30	12.06		100	7	14.82	3663	5.39	116.3	0.67	6.04	
10:35	12.06		100	7.5	14.83	3667	5.38	117.5	0.68	5.88	
10:40	12.06		100	8	14.82	3660	5.38	117.4	0.68	5.50	
10:45	12.06	300	100	8.5	14.84	3670	5.38	118.3	0.69	5.09	
Sample											

Development Method **Peristaltic Pump** / Bailer / Inertial Pump / Other \_\_\_\_\_

Sample Field Treatment *If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!*

Field Decontamination? **Yes / No** If Yes, with what? \_\_\_\_\_  
 Waste Container ID **714130**

**Additional Comments**

Field Personnel **Nate Emmons** **Sophia Kim** **Signature**  
**Rich D'Amico** **Nate Emmons**



Loureiro Engineering Associates, Inc.

## FIELD SAMPLING RECORD LOW FLOW WELL SAMPLE

LEA Comm. No. 88UT907.001  
Project UTC P&W Willowpond Quarterly GW Mon.  
Location P&W East Hartford, East Hartford, CT  
Client Pratt & Whitney Division - JTot

Page 8 of 12  
Date 05/10/09  
Sample Time 11:05

Monitoring Well Number WT-MW-41 Sample Number(s) 1123434 1123434 of

### Initial Field Data and Measurements

Depth of Well 9.32' Reference Used T of C  
Depth to Water 4.80' PID/FID Reading NM  
Height of Column 4.52' Interface Yes / No If yes, Depth Lighter / Heavier  
Well Casing Diameter 0.5" Material PVC General Condition OK Bad  
Protector Road Box / Stickup Casing Secure 1  
Ground to Reference Collar Intact 1  
Comments Cover Locked 1  
Other (describe)

### Development Information

Parameter Time	Depth to Water	Pump Setting	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	Comment
10:00	4.80	300	120	0							→ PBARG, IN
10:20	*			2.4	13.01	2022	6.04	67.5	1.88	2.28	
10:30				3.6	13.19	2030	6.03	66.6	1.95	2.94	
10:40				4.8	13.22	2031	5.92	74.3	2.32	1.89	
10:50				6	13.23	2032	5.96	76.3	2.46	2.19	
10:55				6.6	13.24	2034	5.95	77.3	2.78	1.21	
11:00				7.2	13.29	2034	5.95	78.0	2.97	1.71	
11:05				7.8	13.27	2034	5.95	78.8	2.92	2.77	SAMPLE

Development Method Peristaltic Pump / Bailer / Inertial Pump / Other

Sample Field Treatment If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!

Field Decontamination? Yes ☒ If Yes, with what?

Waste Container ID 714130

Additional Comments 0.5" well diameter too narrow to measure water level during purging

Field Personnel Nate Emmons Sophia Kim  
Rich D'Amico

Signature





Loureiro Engineering Associates, Inc.

# FIELD SAMPLING RECORD LOW FLOW WELL SAMPLE

LEA Comm. No. **88UT907.001** Page **9** of **12**  
Project **UTC P&W Willowpond Quarterly GW Mon.** Date **6/5/89**  
Location **P&W East Hartford, East Hartford, CT** Sample Time **13:10**  
Client **Pratt & Whitney Division - JTot**

Monitoring Well Number **WT-MW-42** Sample Number(s) **1123435** **1123435uf**

## Initial Field Data and Measurements

Depth of Well **8.33'** Reference Used **T of C**  
Depth to Water **3.00'** PID/FID Reading **NM**  
Height of Column **5.33'** Interface **Yes / No** If yes, Depth **Lighter / Heavier**  
Well Casing Diameter **0.5"** Material **PVC** General Condition **OK** **Bad**  
Protector **Road Box / Stickup** Casing Secure **✓**  
Ground to Reference **NM** Collar Intact **✓**  
Comments **✓** Cover Locked **✓**  
Other (describe)

## Development Information

Parameter	Depth to Water	Pump Setting	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	Comment
Time											
12:50	3.00	300	150	0							
12:10	*		120	3	13.10	359	5.99	0.5	2.01	3.11	PURGING
12:20				4.2	13.14	359	5.96	9.9	1.33	2.74	
12:30				5.4	13.31	360	5.91	14.6	1.11	2.31	
12:40				6.6	13.37	361	5.90	17.5	1.27	3.31	
12:50				7.8	13.28	363	5.89	20.6	1.34	2.62	
13:00				9	13.61	363	5.89	25.2	1.37	1.79	
13:10				10.2	13.48	363	5.89	23.0	1.39	1.64	SAMPLE

Development Method **Peristaltic Pump / Bailer / Inertial Pump / Other**

Sample Field Treatment *If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!*

Field Decontamination? **Yes / (No)** If Yes, with what?  
Waste Container ID **714130**

Additional Comments **NOT MEASURED DUE TO WELL DIAMETER**

Field Personnel **Nate Emmons** **Sophia Kim** **Signature**  
**Rich D'Amico**



Loureiro Engineering Associates, Inc.

# FIELD SAMPLING RECORD

## LOW FLOW WELL SAMPLE

LEA Comm. No. **88UT907.001** Page 10 of 12  
Project **UTC P&W Willowpond Quarterly GW Mon.** Date 6/5/09  
Location **P&W East Hartford, East Hartford, CT** Sample Time 10:25  
Client **Pratt & Whitney Division - JTot**

Monitoring Well Number WT-MW-50 Sample Number(s) 1123438 112343805  
1123439 112343904

### Initial Field Data and Measurements

Depth of Well 5.2 Reference Used TOR  
Depth to Water 2.1 PID/FID Reading N/A  
Height of Column 3.1 Interface N/A Yes / No If yes, Depth Lighter / Heavier  
Well Casing Diameter 2" Material MC General Condition OK Bad  
Protector Road Box / Stickup Casing Secure ✓  
Ground to Reference ✓ Collar Intact ✓  
Comments ✓ Cover Locked ✓  
Other (describe)

### Development Information

Parameter	Depth to Water	Pump Setting	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	Comment
Time											
0915	N/A	350	100	0							Initial
0920					15.91	3912	6.82	-150.1	0.10	30.7	
0930					16.04	3974	6.83	-144.9	0.01	15.1	
0940					16.06	3981	6.81	-142.8	0.12	9.4	
0950					16.09	3989	6.81	-149.9	0.14	2.1	
1000					16.10	4101	6.81	-157.2	0.18	4.7	
1010					16.11	4111	6.81	-151.3	0.14	3.9	
1015					16.12	4115	6.81	-152.2	0.15	2.8	
1020					16.10	4114	6.81	-151.8	0.16	3.1	
1025				7	16.11	4112	6.82	-152.1	0.18	2.9	Sample

Development Method Peristaltic Pump Bailer / Inertial Pump / Other

Sample Field Treatment If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!

Field Decontamination? Yes No If Yes, with what?

Waste Container ID

### Additional Comments

Duplicate Pore

Field Personnel Nate Emmons Sophia Kim  
Rich D'Amico

Signature [Signature]





Loureiro Engineering Associates, Inc.

## FIELD SAMPLING RECORD LOW FLOW WELL SAMPLE

LEA Comm. No. **88UT907.001** Page 11 of 12  
Project **UTC P&W Willowpond Quarterly GW Mon.** Date 6/5/09  
Location **P&W East Hartford, East Hartford, CT** Sample Time 14:40  
Client **Pratt & Whitney Division - JTot**

Monitoring Well Number WT-MW-44 Sample Number(s) 112344 1123410F

### Initial Field Data and Measurements

Depth of Well N/A Reference Used TOR  
Depth to Water N/A PID/FID Reading N/A  
Height of Column N/A Interface N/A Yes/No If yes, Depth Lighter/Heavier  
Well Casing Diameter                      Material ALC General Condition OK Bad  
Protector Road Box Stickup Casing Secure                       
Ground to Reference                      Collar Intact                       
Comments                      Cover Locked                       
Other (describe)                     

### Development Information

Parameter	Depth to Water	Pump Setting	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	Comment
Time											
1335	<u>N/A</u>	<u>350</u>	<u>100</u>	<u>0</u>	<u>12.10</u>	<u>721</u>	<u>5.58</u>	<u>341.2</u>	<u>4.82</u>	<u>21.2</u>	<u>Initial</u>
1340					<u>12.22</u>	<u>731</u>	<u>5.54</u>	<u>340.1</u>	<u>4.61</u>	<u>12.7</u>	
1350					<u>12.22</u>	<u>740</u>	<u>5.58</u>	<u>340.1</u>	<u>4.59</u>	<u>10.1</u>	
1400					<u>12.17</u>	<u>736</u>	<u>5.67</u>	<u>347.1</u>	<u>4.70</u>	<u>6.2</u>	
1410					<u>12.10</u>	<u>739</u>	<u>5.63</u>	<u>341.9</u>	<u>4.71</u>	<u>5.0</u>	
1420					<u>12.12</u>	<u>738</u>	<u>5.62</u>	<u>341.9</u>	<u>4.73</u>	<u>4.8</u>	
1430					<u>12.14</u>	<u>740</u>	<u>5.61</u>	<u>347.1</u>	<u>4.70</u>	<u>3.1</u>	
1435					<u>12.13</u>	<u>740</u>	<u>5.63</u>	<u>347.1</u>	<u>4.81</u>	<u>4.2</u>	<u>Sample</u>
1440											

Development Method Peristaltic Pump / Bailer / Inertial Pump / Other

Sample Field Treatment If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!

Field Decontamination? Yes / No If Yes, with what?                       
Waste Container ID                     

### Additional Comments

water level indicator does not fit down well

Field Personnel Nate Emmons Sophia Kim Signature                       
Rich D'Amico



Loureiro Engineering Associates, Inc.

# FIELD SAMPLING RECORD

## LOW FLOW WELL SAMPLE

LEA Comm. No. 88UT907.001  
Project UTC P&W Willowpond Quarterly GW Mon.  
Location P&W East Hartford, East Hartford, CT  
Client Pratt & Whitney Division - JTot

Page 12 of 12  
Date 6/5/09  
Sample Time 13:00

Monitoring Well Number WT-MW-43 Sample Number(s) 1123440 11234400F

### Initial Field Data and Measurements

Depth of Well N/A Reference Used TOR  
Depth to Water N/A PID/FID Reading N/A  
Height of Column N/A Interface N/A Yes / No If yes, Depth Lighter / Heavier  
Well Casing Diameter 1/2" Material PVC General Condition OK / Bad  
Protector Road Box / Stickup Casing Secure  
Ground to Reference Collar Intact  
Comments Cover Locked  
Other (describe)

### Development Information

Parameter Time	Depth to Water	Pump Setting	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	Comment
1150	N/A	350	100	0							Initial
1155					13.08	579	5.85	210.1	1.72	15.6	
1205					13.41	561	5.80	221.6	1.70	10.2	
1215					13.38	564	5.41	242.5	1.69	8.4	
1225					13.36	571	5.29	271.2	1.66	5.6	
1235					13.34	510	5.27	291.4	1.65	4.9	
1245					13.32	507	5.25	294.6	1.65	3.1	
1250					13.38	508	5.24	301.2	1.66	2.8	
1255					13.40	509	5.27	304.7	1.67	1.2	
1300				7	13.40	508	5.27	302.1	1.66	2.8	Sample

Development Method Peristaltic Pump / Bailer / Inertial Pump / Other

Sample Field Treatment If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!

Field Decontamination? Yes / No If Yes, with what?

Waste Container ID

Additional Comments

water level is large to get down well

Field Personnel Nate Emmons  
Rich D'Amico

Sophia Kim

Signature

# ACCUTEST.

L a b o r a t o r i e s

## CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE

MARLBOROUGH, MA 01752

TEL: 508-481-6200 • FAX: 508-481-7753

**ACCUTEST JOB #:****ACCUTEST QUOTE #:**

KB2/2009-453

CLIENT INFORMATION			FACILITY INFORMATION			ANALYTICAL INFORMATION						MATRIX CODES				
NAME LEA			PROJECT NAME Willow Pond GW Monitoring									DW - DRINKING WATER				
ADDRESS 100 Northwest Dr			LOCATION Rte East Hartford									GW - GROUND WATER				
CITY, STATE ZIP Plainville CT 06062			PROJECT NO. 88UT907									WW - WASTE WATER				
SEND REPORT TO: PHONE # Robin McKinney (860) 747-6181			FAX #									SO - SOIL				
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION			MATRIX	# OF BOTTLES	PRESERVATION					LAB USE ONLY				
		DATE	TIME	SAMPLED BY:			HCl	NaOH	HNO3	H2SO4	NONE		ACE			
-	1123427	6/5/09	10:45	NE	GAD	6	2			46	X	X	X			
-	1123427 uf		10:45	NE		1		X		1			X			
-	1123436		12:15	NE		6	2			46	X	X	X			
-	1123436 uf		12:15	NE		1		1		1			X			
-	1123437		14:20	NE		6	2			46	X	X	X			
-	1123437 uf		14:20	NE		1		1		1			X			
-	1123434		11:05	SK		6	2			46	X	X	X			
-	1123434 uf		11:05	SK		1		1		1			X			
-	1123435	(circled)	13:10	SK		6	2			46	X	X	X			
-	1123435 uf	✓	13:10	SK		1		1		1			X			
-	1123443	6/5/09	8:30	NE		1	1				X					
DATA TURNAROUND INFORMATION			DATA DELIVERABLE INFORMATION			COMMENTS/REMARKS										
<input checked="" type="checkbox"/> 14 DAYS STANDARD APPROVED BY: _____ <input type="checkbox"/> 7 DAYS RUSH _____ <input type="checkbox"/> 48 HOUR EMERGENCY _____ <input type="checkbox"/> OTHER _____			<input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> COMMERCIAL "B" <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> STATE FORMS <input type="checkbox"/> OTHER (SPECIFY) _____			CT RCP List for VOC PCB Provide CT RCP Report										
14 DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED																
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY																
RELINQUISHED BY SAMPLER:		DATE TIME:	RECEIVED BY:		RELINQUISHED BY:		DATE TIME:	RECEIVED BY:								
1. Nathan Emerson		6/5/09 15:30	1. [Signature]		2.			2.								
RELINQUISHED BY:		DATE TIME:	RECEIVED BY:		RELINQUISHED BY:		DATE TIME:	RECEIVED BY:								
3.			3.		4.			4.								
RELINQUISHED BY:		DATE TIME:	RECEIVED BY:		SEAL #		PRESERVE WHERE APPLICABLE		ON ICE		TEMPERATURE					
5.			5.								C					



# ACCUTEST

Laboratories

## CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE

MARLBOROUGH, MA 01752

TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:

ACCUTEST QUOTE #:

KB2/2009-453

CLIENT INFORMATION			FACILITY INFORMATION			ANALYTICAL INFORMATION										MATRIX CODES	
<b>NAME</b> LEA <b>ADDRESS</b> 100 Northwest Dr Plainville CT 06062 <b>CITY, STATE ZIP</b> Robin McKinney <b>SEND REPORT TO: PHONE #</b> (860) 747-6181			<b>PROJECT NAME</b> Willow Pond GW Monitoring <b>LOCATION</b> RtW East Hartford <b>PROJECT NO.</b> 88UT 907 <b>FAX #</b>			VOCs 8260 CT ETPH PCBs 8082 Metals PCRA 8 + Cu, Ni, Zn										DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OI - OIL LIQ - OTHER LIQUID SOL - OTHER SOLID	
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION			MATRIX	# OF BOTTLES	PRESERVATION							LAB USE ONLY			
		DATE	TIME	SAMPLED BY:			HCl	NaOH	HNO3	H2SO4	NONE	ISE					
-	1123444	6/5/09	14:30	NA	GW	6	2				4	6	X	X	X		
-	1123444 UF		14:30	NE		1			1		1				X		
-	1123441		14:40	RD		6	2				4	6	X	X	X		
-	1123441 UF		14:40	RD		1			1		1				X		
-	1123438		10:25	RD		6	2				4	6	X	X	X		
-	1123438 UF		10:25	RD		1			1		1				X		
-	1123439		10:25	RD		6	2				4	6	X	X	X		
-	1123439 UF		10:25	RD		1			1		1				X		
-	1123440		13:00	RD		6	2				4	6	X	X	X		
-	1123440 UF	6/5/09	13:00	RD	GW	1			1		1				X		
<b>DATA TURNAROUND INFORMATION</b> <input checked="" type="checkbox"/> 14 DAYS STANDARD <input type="checkbox"/> 7 DAYS RUSH <input type="checkbox"/> 48 HOUR EMERGENCY <input type="checkbox"/> OTHER 14 DAY TURNAROUND HARDCOPY, EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED			<b>DATA DELIVERABLE INFORMATION</b> <input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> COMMERCIAL "B" <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> STATE FORMS <input type="checkbox"/> OTHER (SPECIFY)			<b>COMMENTS/REMARKS</b> CT RCP List for VOC + PCB Provide CT RCP Report											
<b>SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY</b>																	
<b>RELINQUISHED BY SAMPLER:</b> 1. Nathan Enwez		<b>DATE TIME:</b> 6/5/09/15:30		<b>RECEIVED BY:</b> 1. [Signature]		<b>RELINQUISHED BY:</b> 2.		<b>DATE TIME:</b>		<b>RECEIVED BY:</b> 2.							
<b>RELINQUISHED BY:</b> 3.		<b>DATE TIME:</b>		<b>RECEIVED BY:</b> 3.		<b>RELINQUISHED BY:</b> 4.		<b>DATE TIME:</b>		<b>RECEIVED BY:</b> 4.							
<b>RELINQUISHED BY:</b> 5.		<b>DATE TIME:</b>		<b>RECEIVED BY:</b> 5.		<b>SEAL #</b>		<b>PRESERVE WHERE APPLICABLE</b> <input type="checkbox"/>		<b>ON ICE</b> <input type="checkbox"/>		<b>TEMPERATURE</b> _____ C					



## DAILY FIELD REPORT



# DAILY FIELD REPORT

## Supplemental Sheet

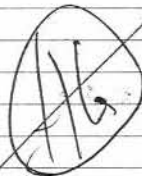
Loureiro Engineering Associates, Inc.

LEA Comm. No. 88UT907.001  
Project UTC P&W Willowpond Quarterly GW Mon.  
Location P&W East Hartford, East Hartford, CT  
Client Pratt & Whitney Division - JTot

Page 2 of 7  
Date 9/9/09

### Description of Site Activities

8:00 Arrive at site  
8:05 Meet w/ Jeff Thompson; Benny drops off VOA vials  
8:15 Begin planning for the week  
Calibrate instruments  
Get gates opened by security  
9:00 Set up on well, begin sampling - HG  
Get works on obtaining round of water levels  
12:00 Not done with water levels; HG done with well  
Waste; Benny picks up samples  
13:15 Offsite



Field Personnel

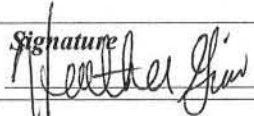
Heather Grimm  
Robert Zurkowski

Signature  
Heather Grimm



Loureiro Engineering Associates, Inc.

## DAILY FIELD REPORT CALIBRATION RECORD

<b>LEA Comm. No.</b> 88UT907.001		Page <u>5</u> of <u>7</u>					
<b>Project</b> UTC P&W Willowpond Quarterly GW Mon.		Date <u>9/9/09</u>					
<b>Location</b> P&W East Hartford, East Hartford, CT							
<b>Client</b> Pratt & Whitney Division - JTot							
<b>pH Meter/Serial #</b>							
	Time	pH 4.01	pH 7.00	pH 10.01	Spec. Cond.	ORP	DO
Initial Calibration			✓		✓	✓	✓
Calibration Check							
Calibration Check							
<b>Turbidity Meter/Serial #</b>							
	Time	0 NTU	20 NTU	100 NTU	800 NTU		
Initial Calibration							
Calibration Check							
Calibration Check							
<b>PID Meter/Serial #</b>							
	Time	Standard	Meter Reading	Zero with			
Initial Calibration							
Calibration Check							
Calibration Check							
<b>Balance/Serial #</b>							
	Time	Standard	Balance				
Initial Calibration							
Calibration Check							
Calibration Check							
<b>Comments</b>							
<b>Field Personnel</b>		Heather Grimm		<b>Signature</b> 			
		Robert Zurkowski					







LEA Comm. No.	88UT907.001
Project	UTC P&W Willowpond Quarterly GW Mon.
Location	P&W East Hartford, East Hartford, CT
Client	Pratt & Whitney Division - JTot

Page 5 of 7  
Date 9/9/09

*Signature*

Signature: Heddes Hinn



Loureiro Engineering Associates, Inc.

# FIELD SAMPLING RECORD

## LOW FLOW WELL SAMPLE

LEA Comm. No. **88UT907.001**  
 Project **UTC P&W Willowpond Quarterly GW Mon.**  
 Location **P&W East Hartford, East Hartford, CT**  
 Client **Pratt & Whitney Division - JTot**

Page **6** of **7**  
 Date **9/9/09**  
 Sample Time **1:46**

Monitoring Well Number **WT-MW-57** Sample Number(s) **1130880**

**1130880uf**

### Initial Field Data and Measurements

Depth of Well **10.82** Reference Used **TOC**  
 Depth to Water **10.82** PID/FID Reading **—**  
 Height of Column **7.30** Interface **Yes (No)** If yes, Depth **—** Lighter / Heavier  
 Well Casing Diameter **1.5"** Material **PVC** General Condition **OK** Bad  
 Protector **Road Box / Stickup** Casing Secure **✓**  
 Ground to Reference **TOC** Collar Intact **✓**  
 Comments **—** Cover Locked **—**  
 Other (describe) **—**

### Development Information

Parameter	Depth to Water	Pump Setting	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	Comment
Time											
9:15	10.82	350	150	0.0	18.43	3247	6.08	-33.3	2.67	44.8	start purging
9:35	10.88			3.0	18.47	3363	5.96	-17.7	0.13	40.0	
9:45	11.15			4.5	18.57	3342	5.97	-15.4	0.18	28.2	
9:55	11.15			6.0	18.68	3325	5.97	-14.9	0.16	19.1	
10:05	11.12			7.5	18.84	3364	5.97	-14.5	0.20	12.7	
10:15	11.18			9.0	19.13	3344	5.98	-15.2	0.13	12.3	
10:25	11.10			10.5	19.25	3347	5.99	-16.8	0.14	12.3	
10:35	11.10			12.0	19.57	3365	5.99	-17.2	0.11	11.5	
10:45	11.12			13.5	19.06	3433	5.99	-16.6	0.12	14.2	
10:55	11.15			15.0	19.17	3495	5.98	-16.4	0.12	16.0	
11:05	11.06			16.5	19.89	3515	5.99	-19.0	0.16	20.0	
11:15	11.11			18.0	19.81	3435	5.99	-18.3	0.16	23.0	
11:25	11.10			19.5	19.89	3413	5.99	-16.3	0.15	20.9	
11:35	11.10			21.0	19.94	3424	6.01	-16.8	0.24	19.5	
11:45	11.10			22.5							

**HG**

**SAMPLED**

Development Method **Peristaltic Pump / Bailer / Inertial Pump / Other**

Sample Field Treatment *If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!*

Field Decontamination? **Yes (No)** If Yes, with what? **—**

Waste Container ID **714130**

### Additional Comments

Field Personnel **Heather Grimm**  
**Robert Zurkowski**

Signature **Heather Grimm**



Loureiro Engineering Associates, Inc.

# FIELD SAMPLING RECORD LOW FLOW WELL SAMPLE

LEA Comm. No. 88UT907.001  
Project UTC P&W Willowpond Quarterly GW Mon.  
Location P&W East Hartford, East Hartford, CT  
Client Pratt & Whitney Division - JTot

Page 7 of 3  
Date 9/9/09  
Sample Time 13:19

Monitoring Well Number WT-MW-477 Sample Number(s) 1130879 1130879uf

## Initial Field Data and Measurements

Depth of Well 14.40 Reference Used TOC  
Depth to Water 8.56 PID/FID Reading  
Height of Column 5.84 Interface Yes (No) If yes, Depth Lighter / Heavier  
Well Casing Diameter 1/2" Material PVC General Condition OK Bad  
Protector Road Box Stickup Casing Secure  
Ground to Reference TOC Collar Intact  
Comments Cover Locked  
Other (describe)

## Development Information

Time	Parameter	Depth to Water	Pump Setting	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	Comment
12:20		8.56	350	120	0.0							
12:40	*	*	*	*	2.4	18.96	383	5.46	100.4	4.32	3.74	START PURGING
12:50	*	*	*	*	3.6	18.29	365	5.55	95.1	1.66	2.43	
13:00	*	*	*	*	4.8	17.86	362	5.73	69.9	1.41	6.02	
13:05	*	*	*	*	5.4	18.49	364	5.73	64.9	1.49	5.25	
13:10	*	*	*	*	6.0	18.46	362	5.74	66.2	1.58	2.07	
13:15	*	*	*	*	6.6	18.36	362	5.73	66.2	1.49	1.87	
13:18	*	*	*	*	7.0	18.43	362	5.74	64.0	1.56	2.12	
SAMPLER												

Development Method Peristaltic Pump / Bailer / Inertial Pump / Other

Sample Field Treatment If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!

Field Decontamination? Yes (No) If Yes, with what?

Waste Container ID 714138

Additional Comments \* Not measured to due 1/2" diameter

Field Personnel Heather Grimm  
Robert Zurkowski

Signature Heather Grimm

# CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE  
MARLBOROUGH, MA 01752  
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:

ACCUTEST QUOTE #:

KB2/2009-453

CLIENT INFORMATION		FACILITY INFORMATION				ANALYTICAL INFORMATION										MATRIX CODES	
<b>NAME</b> Loureiro Engineering Associates <b>ADDRESS</b> 100 Northwest Drive <b>CITY, STATE, ZIP</b> Plainville CT 06062 <b>SEND REPORT TO:</b> Robin McKinney <b>PHONE #</b> 860-747-6181		<b>PROJECT NAME</b> P&W East Hartford - Willow Brook Pond <b>LOCATION</b> Pratt Whitney, East Hartford, CT <b>PROJECT NO.</b> 88UT907 <b>FAX #</b>				<b>ANALYTICAL INFORMATION</b> VOCs 8040B CT ETPH PCBs 8082 Total PCBs & metabolites HOLD										<b>MATRIX CODES</b> DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OI - OIL LIQ - OTHER LIQUID SOL - OTHER SOLID	
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION			MATRIX	# OF BOTTLES	PRESERVATION						LAB USE ONLY				
		DATE	TIME	SAMPLED BY:			HCl	NaOH	HNO3	H2SO4	NONE	OTHER					
	1130880	9/9/09	11:46	HG	GW	2	X										
	1130880		11:46	HG		4											
	1130880		11:46	HG		1			X								X
	1130880uf		11:46	HG		1			X								
	1130879		13:19	HG	GW	2											
	1130879		13:19	HG		4											
	1130879uf		13:19	HG		1											
	1130877		13:00	HG		1											
<b>DATA TURNAROUND INFORMATION</b> <input checked="" type="checkbox"/> 14 DAYS STANDARD <input type="checkbox"/> 7 DAYS RUSH <input type="checkbox"/> 48 HOUR EMERGENCY <input type="checkbox"/> OTHER APPROVED BY: _____ 14 DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED		<b>DATA DELIVERABLE INFORMATION</b> <input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> COMMERCIAL "B" <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> STATE FORMS <input type="checkbox"/> OTHER (SPECIFY) _____				<b>COMMENTS/REMARKS</b> P&W RCP analytical list for VOCs & PCBs; provide CT RCP report											
<b>SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY</b>																	
<b>RELINQUISHED BY SAMPLER:</b> 1. [Signature]		<b>DATE TIME:</b> 9-9-09		<b>RECEIVED BY:</b> [Signature]		<b>RELINQUISHED BY:</b>		<b>DATE TIME:</b>		<b>RECEIVED BY:</b>							
<b>RELINQUISHED BY:</b>		<b>DATE TIME:</b>		<b>RECEIVED BY:</b>		<b>RELINQUISHED BY:</b>		<b>DATE TIME:</b>		<b>RECEIVED BY:</b>							
<b>RELINQUISHED BY:</b>		<b>DATE TIME:</b>		<b>RECEIVED BY:</b>		<b>SEAL #</b>		<b>PRESERVE WHERE APPLICABLE</b>		<b>ON ICE</b>		<b>TEMPERATURE</b> _____ C					





# DAILY FIELD REPORT

Loureiro Engineering Associates, Inc.

LEA Comm. No. 88UT907.001  
Project UTC P&W Willowpond Quarterly GW Mon.  
Location P&W East Hartford, East Hartford, CT  
Client Pratt & Whitney Division - JTot

Page 1 of 12  
Date 9/10/2009

Arrived at Site 710 Departed from Site 1910

Vehicle GMC Van, Personal

Odometer (Start)Re turn

## Site Activities

- |  |   |
|--|---|
| <input type="checkbox"/> Soil Sampling                   | <input type="checkbox"/> Geoprobe Work    |
| <input checked="" type="checkbox"/> Groundwater Sampling | <input type="checkbox"/> Concrete Coring  |
| <input type="checkbox"/> Surface Water Sampling          | <input type="checkbox"/> Construction     |
| <input type="checkbox"/> Vapor/Air Sampling              | <input type="checkbox"/> Waste Management |
| <input type="checkbox"/> Concrete Sampling               |   |
| <input type="checkbox"/> Other Sampling                  | <input type="checkbox"/> Inspection       |
| <input type="checkbox"/> Other Sampling                  | <input type="checkbox"/> Site Walk Over   |
|  | <input type="checkbox"/> Surveying        |
| <input type="checkbox"/> Well Development                | <input type="checkbox"/> Other (Describe) |

## Current Project Information

Last Sample Number Used  
Last Location ID Used  
Current Location (if not complete)  
Sampling for VOC Metals, TPH, PCBs  
Laboratories used Accutest  
Paperwork & Equipment left at/in Office  
Site Contact Jeff Thompson  
Contractors on Site H. GRIMM & Zurkowski  
Time and place to meet contractors

## Non-productive Time

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> None     | <input type="checkbox"/> Weather           |
| <input type="checkbox"/> Equipment Breakdown | <input type="checkbox"/> Missing Equipment |
| <input type="checkbox"/> Late                | <input type="checkbox"/> Other (Describe)  |

## Quality Assurance Checks

- | Yes                                 | N/A | No |                         |
|-------------------------------------|-----|----|-------------------------|
| <input checked="" type="checkbox"/> |     |    | Sample labels complete  |
| <input checked="" type="checkbox"/> |     |    | Sample/cooler seals OK  |
| <input checked="" type="checkbox"/> |     |    | All samples obtained    |
| <input checked="" type="checkbox"/> |     |    | Chains of custody       |
| <input checked="" type="checkbox"/> |     |    | All forms/logs complete |
| <input checked="" type="checkbox"/> |     |    | Site condition OK       |
| <input checked="" type="checkbox"/> |     |    | Site H&S Plan on site   |
| <input checked="" type="checkbox"/> |     |    | Instruments calibrated  |

## Residuals Disposition

Item	Approx. Amount	Container ID
Soil/Solid		
Groundwater	~14 gallons	714130
Decon Fluid		
PPE		
Other		

## Weather Conditions

Temperature 70s Precipitation — Wind —  
Comments

## Checked By

Robin McKinney

## Expendable Items Used

Qty	Item	LEA Number
	Bailer, Disposable (specify size)	090
	Drum, Closed Top 55 Gallon	086
	Filter, In Line	024
	Miscellaneous Health & Safety Items	060
1	Tubing, 1/4" NOS	007
2	Tubing, 3/8" NOS POLY	008
	Water, Distilled	025

## Equipment Used

Qty	Item	LEA Number
	Generator 3500 Watt	153
	Meter, Conductivity	022
	Meter, pH/Temp	021
	Miscellaneous Small Tools & Equipment	152
	Pump, Grundfos	073
2	Pump, Peristaltic (spec. Master or Isco)	040
	Pump, Submersible	201
	Pump, Watera	038
2	Turbidimeter	023
2	VOC Analyzer, Photovac 2020 (PID)	012
	Water Level Indicator	028
2	Water Quality Meter w/Flow Cell	070

## Field Personnel

Heather Grimm  
Robert Zurkowski

Signature Heather Grimm



Loureiro Engineering Associates, Inc.

# FIELD SAMPLING RECORD MISCELLANEOUS SAMPLES

LEA Comm. No. 88UT907.001  
Project UTC P&W Willowpond Quarterly GW Mon.  
Location P&W East Hartford, East Hartford, CT  
Client Pratt & Whitney Division - JTot

Page 2 of 12  
Date 9/10/09

Sample ID	Location ID	Time	Sample Type	Depth (ft)	PID/FID Reading	Comments	Waste Cont. ID
N 30889	FR 1P Blank	1400	BKT	—	—	—	—

Field Personnel

Heather Grimm  
Robert Zurkowski

Signature





Loureiro Engineering Associates, Inc.

# DAILY FIELD REPORT CALIBRATION RECORD

<b>LEA Comm. No.</b> 88UT907.001		Page <u>3</u> of <u>13</u>					
<b>Project</b> UTC P&W Willowpond Quarterly GW Mon.		Date <u>9/10/09</u>					
<b>Location</b> P&W East Hartford, East Hartford, CT							
<b>Client</b> Pratt & Whitney Division - JTot							
<b>pH Meter/Serial #</b> <u>06K1082 AK</u> <u>09F00827</u>							
	Time	pH 4.01	pH 7.00	pH 10.01	Spec. Cond.	ORP	DO
Initial Calibration			✓		✓	✓	✓
Calibration Check			✓		✓	✓	✓
Calibration Check							
<b>Turbidity Meter/Serial #</b> <u>3521, 2014</u>							
	Time	0 NTU	20 NTU	100 NTU	800 NTU		
Initial Calibration			✓	✓			
Calibration Check			✓	✓			
Calibration Check							
<b>PID Meter/Serial #</b>							
	Time	Standard	Meter Reading	Zero with			
Initial Calibration							
Calibration Check							
Calibration Check							
<b>Balance/Serial #</b>							
	Time	Standard	Balance				
Initial Calibration							
Calibration Check							
Calibration Check							
<b>Comments</b>							
<b>Field Personnel</b>		<b>Signature</b>					
Heather Grimm		<u>Heather Grimm</u>					
Robert Zurkowski							



## DAILY FIELD REPORT

Loureiro Engineering Associates, Inc.

### Supplemental Sheet

LEA Comm. No. 88UT907.001  
Project UTC P&W Willowpond Quarterly GW Mon.  
Location P&W East Hartford, East Hartford, CT  
Client Pratt & Whitney Division - JTot

Page 4 of 12  
Date 9/10/09

#### Description of Site Activities

7:15<sup>PM</sup> Arrive at site, gate unlocked, carry equipment to far side of pond  
8:25 Begin purging  
16:20 Hand over sampler to Benny  
Waste Management  
17:10 Offsite

JHG

Field Personnel Heather Grimm  
Robert Zurkowski

Signature  
Heather Grimm



Loureiro Engineering Associates, Inc.

# FIELD SAMPLING RECORD

## LOW FLOW WELL SAMPLE

LEA Comm. No. **88UT907.001**  
 Project **UTC P&W Willowpond Quarterly GW Mon.**  
 Location **P&W East Hartford, East Hartford, CT**  
 Client **Pratt & Whitney Division - JTot**

Page **5** of **12**  
 Date **9/10/09**  
 Sample Time **9:30**

Monitoring Well Number **WT-MW-41** Sample Number(s) **1130878** **11308780f**

### Initial Field Data and Measurements

Depth of Well **9.42** Reference Used **TOR**  
 Depth to Water **4.30** PID/FID Reading **-**  
 Height of Column **5.12** Interface **Yes / ☒ No** If yes, Depth **-** Lighter / Heavier  
 Well Casing Diameter **5"** Material **PVC** General Condition **OK** **Bad**  
 Protector **Road Box / Stickup** Casing Secure **X**  
 Ground to Reference **-** Collar Intact **X**  
 Comments **-** Cover Locked **X**  
 Other (describe) **-**

### Development Information

Parameter	Depth to Water	Pump Setting	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	DO% Comment
Time											
8:30	4.30	300	120	START	PURG	1.06					
8:40				1.2	15.78	1345	5.68	143.0	0.51	1.66	5.2
8:50				2.4	15.89	1333	5.68	85.0	0.50	1.58	5.0
9:00				3.6	15.88	1331	5.67	79.2	0.42	1.60	4.2
9:10				4.8	15.99	1324	5.67	92.5	0.58	1.55	5.3
9:20				6	16.02	1328	5.67	82.4	0.48	1.50	4.8
9:25				6.6	16.05	1326	5.67	83.6	0.44	1.48	4.3
9:30				7.2	16.06	1325	5.67	82.8	0.46	1.49	4.6

Development Method **Peristaltic Pump** / Bailer / Inertial Pump / Other

Sample Field Treatment *If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!*

Field Decontamination? **Yes / No** If Yes, with what? **-**  
 Waste Container ID **71430**

### Additional Comments

Field Personnel **Heather Grimm** **Robert Zurkowski** Signature **HT gmm**



Loureiro Engineering Associates, Inc.

# FIELD SAMPLING RECORD LOW FLOW WELL SAMPLE

LEA Comm. No. **88UT907.001** Page **6** of **12**  
Project **UTC P&W Willowpond Quarterly GW Mon.** Date **9/10/09**  
Location **P&W East Hartford, East Hartford, CT** Sample Time **11:40**  
Client **Pratt & Whitney Division - JTot**

Monitoring Well Number **WT-MW-44** Sample Number(s) **1130881** **113088101**

## Initial Field Data and Measurements

Depth of Well **13.65** Reference Used **TOR**  
Depth to Water **9.00** PID/FID Reading \_\_\_\_\_  
Height of Column **4.65** Interface **Yes / No** If yes, Depth \_\_\_\_\_ Lighter / Heavier \_\_\_\_\_  
Well Casing Diameter **.5"** Material **PVC** General Condition **OK** Bad \_\_\_\_\_  
Protector **Road Box** Stickup Casing Secure **X** \_\_\_\_\_  
Ground to Reference \_\_\_\_\_ Collar Intact **X** \_\_\_\_\_  
Comments \_\_\_\_\_ Cover Locked **X** \_\_\_\_\_  
Other (describe) \_\_\_\_\_

## Development Information

Parameter	Depth to Water	Pump Setting	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	DO% Comment
Time											
10:40	9.00	300	120	START	PURGING						
10:50				1.2	15.51	573	5.63	117.7	0.25	1.95	7.5
11:00				2.4	15.57	569	5.62	117.9	1.81	1.92	19.7
11:10				3.6	15.48	571	5.58	121.6	1.36	1.85	13.6
11:20				4.8	15.50	570	5.58	123.8	1.27	1.68	12.7
11:30				6	15.51	567	5.59	120.0	1.26	1.60	11.6
11:35				6.6	15.50	566	5.59	121.6	1.28	1.58	11.3
11:40				7.2	15.51	564	5.59	120.9	1.27	1.55	11.8

Development Method **Peristaltic Pump** / Bailer / Inertial Pump / Other \_\_\_\_\_

Sample Field Treatment *If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!*

Field Decontamination? **Yes / No** If Yes, with what? \_\_\_\_\_

Waste Container ID **71430**

## Additional Comments

Field Personnel **Heather Grimm** **Signature**  
**Robert Zurkowski** **Robert Zurkowski**



Loureiro Engineering Associates, Inc.

# FIELD SAMPLING RECORD LOW FLOW WELL SAMPLE

LEA Comm. No. **88UT907.001** Page 7 of 12  
Project **UTC P&W Willowpond Quarterly GW Mon.** Date 9/10/09  
Location **P&W East Hartford, East Hartford, CT** Sample Time 13:05  
Client **Pratt & Whitney Division - JTot**

Monitoring Well Number WT-MW-46 Sample Number(s) 1130882 1130882 of

## Initial Field Data and Measurements

Depth of Well 12.70 Reference Used TOR  
Depth to Water 6.20 PID/FID Reading -  
Height of Column 6.50 Interface Yes ☒ No ☐ If yes, Depth - Lighter / Heavier  
Well Casing Diameter .5" Material PVC General Condition OK ☐ Bad ☐  
Protector Road Box Stickup Casing Secure ☒  
Ground to Reference - Collar Intact ☒  
Comments - Cover Locked ☒  
Other (describe) -

## Development Information

Parameter	Depth to Water	Pump Setting	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	100% Comment
Time											
12:00	6.20	360	120	START	PURGING						
12:10				1.2	17.36	366	5.10	176.1	1.65	1.60	17.1
12:20				2.4	17.30	366	5.09	167.1	1.49	1.58	15.0
12:30				3.6	16.89	362	5.07	159.7	1.59	1.46	16.6
12:40				4.8	17.21	361	5.08	159.4	1.39	1.32	14.5
12:50				6	17.24	360	5.09	159.4	1.41	1.30	14.8
12:55				6.6	17.19	359	5.09	158.8	1.59	1.27	16.7
13:00				7.2	17.10	359	5.08	158.0	1.62	1.25	16.8
13:05				7.8	17.12	359	5.08	157.8	1.58	1.19	16.5

Development Method Peristaltic Pump / Bailer / Inertial Pump / Other

Sample Field Treatment *If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!*

Field Decontamination? Yes / No If Yes, with what? -  
Waste Container ID 717130

## Additional Comments

Field Personnel Heather Grimm Robert Zurkowski Signature [Signature]



Loureiro Engineering Associates, Inc.

## FIELD SAMPLING RECORD LOW FLOW WELL SAMPLE

LEA Comm. No. **88UT907.001** Page 8 of 11  
Project **UTC P&W Willowpond Quarterly GW Mon.** Date 9/10/09  
Location **P&W East Hartford, East Hartford, CT** Sample Time 14:45  
Client **Pratt & Whitney Division - JTot**

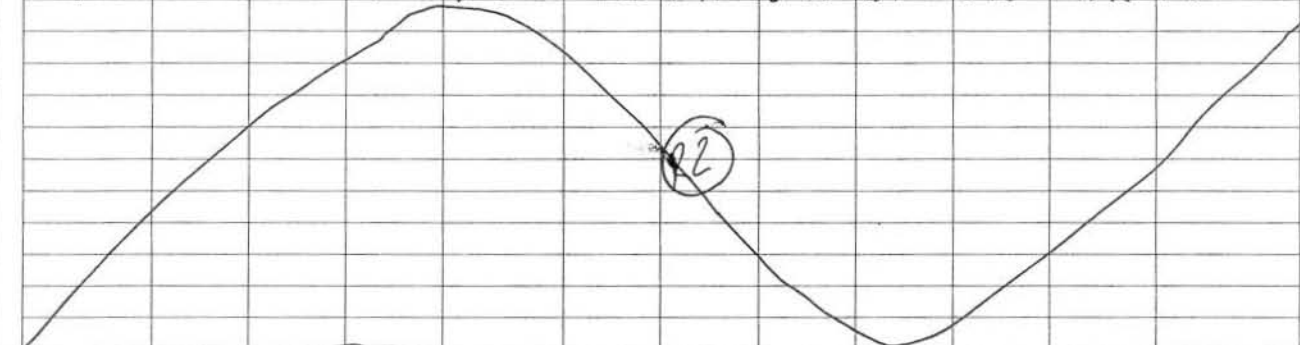
Monitoring Well Number WT-MW-48 Sample Number(s) 1130883 1130883uf

### Initial Field Data and Measurements

Depth of Well 7.54 Reference Used TOR  
Depth to Water 3.78 PID/FID Reading -  
Height of Column 3.76 Interface Yes / No If yes, Depth Lighter / Heavier  
Well Casing Diameter 1" Material PVC General Condition OK Bad  
Protector 1" x 1" x 1" Stickup Casing Secure X  
Ground to Reference - Collar Intact X  
Comments - Cover Locked X  
Other (describe) -

### Development Information

Parameter	Depth to Water	Pump Setting	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	% Comment
Time											
13:45	3.78	300	120	START	PURGING						
13:55	4.88			1.2	20.02	719	6.20	456.9	0.23	7.09	2.5
14:05	4.88			2.4	20.71	750	6.23	47.4	0.20	6.91	2.3
14:15				3.6	20.82	744	6.24	53.6	0.16	2.26	1.7
14:25				4.8	20.97	750	6.26	55.8	0.16	2.78	1.8
14:35				6	20.83	744	6.26	50.5	0.16	2.59	1.8
14:40				6.6	20.80	742	6.26	55.3	0.16	2.36	1.9
14:45				7.2	20.88	742	6.26	54.9	0.16	2.32	1.8



Development Method Peristaltic Pump / Bailer / Inertial Pump / Other

Sample Field Treatment *If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!*

Field Decontamination? Yes / No If Yes, with what? -  
Waste Container ID 71430

### Additional Comments

Field Personnel **Heather Grimm** *Signature*  
**Robert Zurkowski** *Signature*





Loureiro Engineering Associates, Inc.

# FIELD SAMPLING RECORD

## LOW FLOW WELL SAMPLE

LEA Comm. No. **88UT907.001**  
 Project **UTC P&W Willowpond Quarterly GW Mon.**  
 Location **P&W East Hartford, East Hartford, CT**  
 Client **Pratt & Whitney Division - JTot**

Page **9** of **12**  
 Date **9/10/09**  
 Sample Time **9:24**

Monitoring Well Number **WT-MW-42** Sample Number(s) **1130885** **1130885uf**

### Initial Field Data and Measurements

Depth of Well **8.78** Reference Used **TOC**  
 Depth to Water **3.20** PID/FID Reading **—**  
 Height of Column **5.58** Interface **Yes (No)** If yes, Depth **—** Lighter / Heavier  
 Well Casing Diameter **1/2"** Material **PVC** General Condition **OK** **Bad**  
 Protector **Road Box / Stickup** Casing Secure **✓**  
 Ground to Reference **TOC** Collar Intact **✓**  
 Comments **—** Cover Locked **—**  
 Other (describe) **—**

### Development Information

Parameter	Depth to Water	Pump Setting	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	Comment
Time											
8:35	3.20	350	100	0.0	START PURGING						
8:55	*	↓	100	2.0	16.18	259	5.60	150.6	0.77	3.07	
9:05	*	↓	100	3.0	16.35	262	5.57	152.8	0.24	2.19	
9:15	*	↓	100	4.0	16.63	264	5.57	151.4	0.34	2.27	
9:20	*	↓	100	4.5	16.69	266	5.56	151.4	0.37	2.01	
9:23	*	↓	100	4.8	16.76	268	5.57	151.5	0.39	2.17	
											SAMPLED

Development Method **Peristaltic Pump / Bailer / Inertial Pump / Other**

Sample Field Treatment *If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!*

Field Decontamination? **Yes (No)** If Yes, with what? **—**

Waste Container ID **714130**

Additional Comments **\* Not measured**

Field Personnel **Heather Grimm**  
**Robert Zurkowski**

*Signature*  
**Heather Grimm**





Loureiro Engineering Associates, Inc.

## FIELD SAMPLING RECORD LOW FLOW WELL SAMPLE

LEA Comm. No. 88UT907.001 Page 10 of 10  
Project UTC P&W Willowpond Quarterly GW Mon. Date 9/10/09  
Location P&W East Hartford, East Hartford, CT Sample Time 10:50  
Client Pratt & Whitney Division - JTot

Monitoring Well Number WT-MW-43 Sample Number(s) 1130886 1130886uf

### Initial Field Data and Measurements

Depth of Well 11.90 Reference Used TOC  
Depth to Water 7.55 PID/FID Reading  
Height of Column 4.35 Interface Yes / No If yes, Depth Lighter / Heavier  
Well Casing Diameter 1/2" Material PVC General Condition OK / Bad  
Protector Road Box / Stickup Casing Secure ☒  
Ground to Reference TOC Collar Intact ☒  
Comments Cover Locked ☒  
Other (describe)

### Development Information

Parameter	Depth to Water	Pump Setting	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	Comment
Time											
1020	7.55	350	100	0.0	16.99	472	5.65	168.3	0.59	1.57	START PURGING
1040	*	↓	100	1.0	17.09	472	5.65	160.8	0.63	1.60	
1045	*	↓	100	2.5	17.09	472	5.65	161.2	0.61	1.62	
1050	*	↓	100	3.0	17.10	472	5.65	160.4	0.61	2.01	
1053	*	↓	100	3.5							
<div>HG</div> <div>SAMPLED</div>											

Development Method Peristaltic Pump / Bailer / Inertial Pump / Other

Sample Field Treatment If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!

Field Decontamination? Yes / No If Yes, with what?

Waste Container ID 714130

### Additional Comments

Field Personnel Heather Grimm  
Robert Zurkowski

Signature  
Heather Grimm



Loureiro Engineering Associates, Inc.

# FIELD SAMPLING RECORD

## LOW FLOW WELL SAMPLE

LEA Comm. No. 88UT907.001  
Project UTC P&W Willowpond Quarterly GW Mon.  
Location P&W East Hartford, East Hartford, CT  
Client Pratt & Whitney Division - JTot

Page 11 of 12  
Date 9/10/09  
Sample Time 13:11

Monitoring Well Number WT-MW-49 Sample Number(s) 1130887 1130887uf

### Initial Field Data and Measurements

Depth of Well 7.42 Reference Used TOC  
Depth to Water 2.13 PID/FID Reading  
Height of Column 5.29 Interface Yes / No If yes, Depth Lighter / Heavier  
Well Casing Diameter 2" Material PVC General Condition OK Bad  
Protector Road Box / Stickup Casing Secure  
Ground to Reference TOC Collar Intact  
Comments Cover Locked  
Other (describe)

### Development Information

Parameter	Depth to Water	Pump Setting	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	Comment
Time											
11:50	2.13	350	120	0.0	19.40	276	5.82	103.6	3.74	7.50	START PURGING
12:10	2.44		120	2.4	20.11	279	5.87	51.2	2.97	6.45	
12:20	2.70		120	3.6	20.11	281	5.89	29.4	2.34	5.65	
12:30	2.70		120	4.8	19.73	288	6.01	39.6	2.18	3.87	
12:40	2.66		100	6.0	19.37	292	6.06	53.5	2.16	3.00	
12:50	2.68		100	7.0	19.04	294	6.08	59.3	2.00	2.59	1.78 (mg/L)
13:00	2.68		100	8.0	19.04	294	6.09	65.6	1.91	2.69	
13:05	2.68		100	8.5	19.01	295	6.10	68.4	1.81	2.87	
13:10	2.68		100	9.0							
HG											
SAMPLED											

Development Method Peristaltic Pump / Bailer / Inertial Pump / Other

Sample Field Treatment If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!

Field Decontamination? Yes / No If Yes, with what?

Waste Container ID 714130

### Additional Comments

Field Personnel Heather Grimm  
Robert Zurkowski

Signature Heather Grimm



Loureiro Engineering Associates, Inc.

## FIELD SAMPLING RECORD LOW FLOW WELL SAMPLE

LEA Comm. No. 88UT907.001  
Project UTC P&W Willowpond Quarterly GW Mon.  
Location P&W East Hartford, East Hartford, CT  
Client Pratt & Whitney Division - JTot

Page 12 of 12  
Date 9/10/2009  
Sample Time 5:54

Monitoring Well Number WT-MW-45 Sample Number(s) 1130888

1130888uf

### Initial Field Data and Measurements

Depth of Well 13.70 Reference Used TOC  
Depth to Water 9.84 PID/FID Reading ---  
Height of Column 3.86 Interface Yes No If yes, Depth --- Lighter / Heavier  
Well Casing Diameter 1/2" Material PVC General Condition OK Bad  
Protector Road Box / Stickup Casing Secure ✓  
Ground to Reference TOC Collar Intact ✓  
Comments --- Cover Locked ---  
Other (describe) ---

### Development Information

Parameter	Depth to Water	Pump Setting	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	Comment
Time											
1400	9.84	300	100	0.0	18.64	7.05	6.46	-138.7	0.60	2.81	
1430	*	↓	100	3.0	18.60	7.10	6.40	-141.5	0.14	2.68	
1440	*	↓	100	4.0	18.49	7.14	6.44	-144.4	0.05	1.24	
1455	*	↓	100	5.5	18.45	7.14	6.40	-140.0	0.13	1.79	
1500	*	↓	100	6.0	18.55	7.14	6.34	-133.9	0.18	2.04	
1505	*	↓	100	6.5	18.59	7.13	6.33	-132.5	0.14	2.44	
1510	*	↓	100	7.0	18.69	7.13	6.32	-132.1	0.14	1.82	
1513	*	↓	100	7.3							
<div>116</div>											
SAMPLED											

Development Method Peristaltic Pump / Bailer / Inertial Pump / Other

Sample Field Treatment *If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!*

Field Decontamination? Yes / No If Yes, with what?

Waste Container ID 71430

Additional Comments \*NOT measured

Field Personnel Heather Grimm  
Robert Zurkowski

Signature Heather Grimm

# CHAIN OF CUSTODY

495 TECHNOLOGY CENTER • BUILDING ONE  
MARLBOROUGH, MA 01752  
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:

ACCUTEST QUOTE #:

KB2/2009-453

CLIENT INFORMATION		FACILITY INFORMATION				ANALYTICAL INFORMATION										MATRIX CODES	
<b>NAME</b> Loureiro Engineering Ass. <b>ADDRESS</b> 100 Northwinds Dr <b>CITY</b> Plainville <b>STATE</b> CT <b>ZIP</b> <b>SEND REPORT TO:</b> <b>PHONE #</b> 860-410-3000		<b>PROJECT NAME</b> UTC PTV Willowpond Quarterly GW <b>LOCATION</b> P4W EAST HARTFORD <b>PROJECT NO.</b> BBUT907.001 <b>FAX #</b>				<div style="display: flex; justify-content: space-between;"> <div> VOCs 87600B  CT ETPH  PCBs 8080  Total K12345 metals plus Cu, Ni, Pb </div> <div> <div style="display: flex; flex-direction: column; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">DW - DRINKING WATER</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">GW - GROUND WATER</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">WW - WASTE WATER</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">SO - SOIL</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">SL - SLUDGE</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">OI - OIL</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">LIQ - OTHER LIQUID</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">SOL - OTHER SOLID</div> </div> </div> </div>										<b>MATRIX CODES</b> LAB USE ONLY	
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION			MATRIX	# OF BOTTLES	PRESERVATION										
		DATE	TIME	SAMPLED BY:			HCl	NaOH	HNO3	H2SO4	NONE	VE					
	1130883ut	9/10/09	1445	RE		1			X								
	1130885		924	HG		2	X										
	1130885		924	HG		4		X									
	1130885ut		924	HG		1			X								
	1130886	(HG)	1056	HG		2	X										
	1130886		1056	HG		4											
	1130886ut		1056	HG		1			X								
	1130887		1311	HG		2	X										
	1130887		1311	HG		4											
	1130887ut		1311	HG		1			X								
	1130888		1514	HG		2	X										
DATA TURNAROUND INFORMATION		DATA DELIVERABLE INFORMATION				COMMENTS/REMARKS											
<input checked="" type="checkbox"/> 14 DAYS STANDARD <input type="checkbox"/> 7 DAYS RUSH <input type="checkbox"/> 48 HOUR EMERGENCY <input type="checkbox"/> OTHER 14 DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED		<input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> COMMERCIAL "B" <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> STATE FORMS <input type="checkbox"/> OTHER (SPECIFY)				Provide CT RCP analytical lists for VOCs + PCBs + provide CT RCP report											
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY																	
RELINQUISHED BY SAMPLER:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:							
1. [Signature]		9-10-09 1645		1. [Signature]		2.				2.							
RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:							
3.				3.		4.				4.							
RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		SEAL #		PRESERVE WHERE APPLICABLE		ON ICE		TEMPERATURE					
5.				5.								C					





## CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE

MARLBOROUGH, MA 01752

TEL: 508-481-6200 • FAX: 508-481-7753

**ACCUTEST JOB #:**

AGCUTEST QUOTE #:

ACCUTEST QUOTE #: 1264/2009-453

[illegible]

## DAILY FIELD REPORT





Loureiro Engineering Associates, Inc.

# DAILY FIELD REPORT CALIBRATION RECORD

<b>LEA Comm. No.</b> 88UT907.001		Page <u>2</u> of <u>10</u>					
<b>Project</b> UTC P&W Willowpond Quarterly GW Mon.		Date <u>9/11/09</u>					
<b>Location</b> P&W East Hartford, East Hartford, CT							
<b>Client</b> Pratt & Whitney Division - JTot							
<b>pH Meter/Serial #</b> <u>09F100831</u> <u>06K10871</u>							
	Time	pH 4.01	pH 7.00	pH 10.01	Spec. Cond.	ORP	DO
Initial Calibration			✓		✓	✓	✓
Calibration Check			✓		✓	✓	✓
Calibration Check							
<b>Turbidity Meter/Serial #</b> <u>3521</u> <u>2014</u>							
	Time	0 NTU	20 NTU	100 NTU	800 NTU		
Initial Calibration			✓	✓			
Calibration Check			✓	✓			
Calibration Check							
<b>PID Meter/Serial #</b>							
	Time	Standard	Meter Reading	Zero with			
Initial Calibration							
Calibration Check							
Calibration Check							
<b>Balance/Serial #</b>							
	Time	Standard	Balance				
Initial Calibration							
Calibration Check							
Calibration Check							
<b>Comments</b>							
<b>Field Personnel</b>		Heather Grimm				<b>Signature</b>	
		Robert Zurkowski					





## DAILY FIELD REPORT

### Supplemental Sheet

Loureiro Engineering Associates, Inc.

Page 3 of 18  
Date 9/11/09

LEA Comm. No. **88UT907.001**  
Project **UTC P&W Willowpond Quarterly GW Mon.**  
Location **P&W East Hartford, East Hartford, CT**  
Client **Pratt & Whitney Division - JTot**

#### Description of Site Activities

8:30 Arrive at site  
Begin calibration / set-ups  
15:45 Begin onsite to collect samples  
16:00 Waste disposal  
16:30 Begin taking the boat out  
17:45 Offsite



Field Personnel

Heather Grimm  
Robert Zurkowski

Signature  
*Heather Grimm*



Loureiro Engineering Associates, Inc.

# FIELD SAMPLING RECORD

## PERFORMANCE SAMPLE

LEA Comm. No. 88UT907.001  
Project UTC P&W Willowpond Quarterly GW Mon.  
Location P&W East Hartford, East Hartford, CT  
Client Pratt & Whitney Division - JTot

Page 4 of 10  
Date 9/11/09

LEA Sample ID

1130893 - VOCs  
1400



USA 800-372-0122  
EUROPE 44 (0) 161 946 2777

Loureiro Engineering  
VOCs  
Preserved with HCl  
Sample ID # 0908-09-02.1

LEA Sample ID

1130893 - metals  
1400



USA 800-372-0122  
EUROPE 44 (0) 161 946 2777

Loureiro Engineering  
Metals  
Preserved with HNO3  
Sample ID # 0908-09-02.4

LEA Sample ID

1130893 - PCBs  
1400



USA 800-372-0122  
EUROPE 44 (0) 161 946 2777

Loureiro Engineering  
PCBs  
Unpreserved  
Sample ID # 0908-09-02.3

LEA Sample ID

1130894 - ETPH  
1410



USA 800-372-0122  
EUROPE 44 (0) 161 946 2777

Loureiro Engineering  
CT ETPH  
Unpreserved  
Sample ID # 0908-09-02.2

LEA Sample ID

LEA Sample ID

Field Personnel

Heather Groun  
Rob Zurkowski

Signature

Heather Groun



Loureiro Engineering Associates, Inc.

## FIELD SAMPLING RECORD

## LOW FLOW WELL SAMPLE

LEA Comm. No. 88UT907.001  
 Project UTC P&W Willowpond Quarterly GW Mon.  
 Location P&W East Hartford, East Hartford, CT  
 Client Pratt & Whitney Division - JTot

Page 5 of 10  
 Date 9/11/09  
 Sample Time 10:25

Monitoring Well Number WT-MW-19SR Sample Number(s) 1130890 1130890af

## Initial Field Data and Measurements

Depth of Well 12.22 Reference Used TOR  
 Depth to Water 9.90 PID/FID Reading ✓  
 Height of Column 2.32 Interface Yes / No If yes, Depth Lighter / Heavier  
 Well Casing Diameter 1.5" Material PVC General Condition OK Bad  
 Protector Road Box Stickup Casing Secure X  
 Ground to Reference Cover Locked X  
 Comments Other (describe)

## Development Information

Parameter	Depth to Water	Pump Setting	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	POC Comment
Time											
9:20	9.90	300	120	START	PURGING						
9:30	10.00			1.2	17.04	3377	6.42	29.9	0.50	23.2	5.2
9:40	10.00			2.4	17.05	3361	6.43	30.0	0.55	12.6	5.7
9:50				3.6	17.01	3314	6.42	29.2	0.49	6.4	5.3
10:00				4.8	17.03	3304	6.43	29.1	0.65	2.88	6.5
10:10				6	17.04	3298	6.43	28.7	0.67	0.61	7.0
10:15				6.6	17.06	3290	6.42	28.4	0.67	0.58	6.8
10:20				7.2	17.06	3289	6.42	28.6	0.67	0.55	7.0
10:25				7.8	17.07	3288	6.42	28.5	0.67	0.50	6.8

Development Method Peristaltic Pump / Bailer / Inertial Pump / Other

Sample Field Treatment If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!

Field Decontamination? Yes/No If Yes, with what?  
 Waste Container ID 728542

## Additional Comments

Field Personnel Heather Grimm  
 Robert Zurkowski

Signature [Signature]



Loureiro Engineering Associates, Inc.

## FIELD SAMPLING RECORD

### LOW FLOW WELL SAMPLE

LEA Comm. No. 88UT907.001  
Project UTC P&W Willowpond Quarterly GW Mon.  
Location P&W East Hartford, East Hartford, CT  
Client Pratt & Whitney Division - JTot

Page 6 of 10  
Date 9/11/2009  
Sample Time 10:29

Monitoring Well Number NT-MW-50 Sample Number(s) 1130895, 1130895uf, 1130896, 1130896uf

#### Initial Field Data and Measurements

Depth of Well 5.20 Reference Used TOC  
Depth to Water 1.80 PID/FID Reading  
Height of Column Interface Yes / No If yes, Depth Lighter / Heavier  
Well Casing Diameter 2" Material PVC General Condition OK Bad  
Protector Road Box / Stickup Casing Secure  
Ground to Reference TOC Collar Intact  
Comments Cover Locked  
Other (describe)

#### Development Information

Parameter	Depth to Water	Pump Setting	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	Comment
Time											
9:15	1.80	350	100	0.0							START PURGING
9:35	*			2.0	15.76	3549	6.79	-183.3	1.33	15.7	
9:45				3.0	15.67	3554	6.74	-193.7	0.29	11.4	
9:55				4.0	15.57	3538	6.71	-196.9	0.16	6.24	
10:05				5.0	15.62	3544	6.71	-195.3	0.16	7.26	
10:15				6.0	15.71	3554	6.70	-191.3	0.21	6.05	
10:20				6.5	15.39	3579	6.69	-189.2	0.16	3.78	
10:25				7.0	15.79	3624	6.69	-184.9	0.25	2.96	
10:28	*			7.3	15.87	3633	6.69	-183.5	0.32	2.68	
HG											
SAMPLED											

Development Method Peristaltic Pump / Bailer / Inertial Pump / Other

Sample Field Treatment If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!

Field Decontamination? Yes / No If Yes, with what?

Waste Container ID 728342

Additional Comments \* Not taken due to location of well & slippery conditions

Field Personnel Heather Grimm  
Robert Zurkowski

Signature Heather Grimm



Loureiro Engineering Associates, Inc.

# FIELD SAMPLING RECORD

## LOW FLOW WELL SAMPLE

LEA Comm. No. **88UT907.001**  
 Project **UTC P&W Willowpond Quarterly GW Mon.**  
 Location **P&W East Hartford, East Hartford, CT**  
 Client **Pratt & Whitney Division - JTot**

Page **7** of **10**  
 Date **9/11/09**  
 Sample Time **12:40**

Monitoring Well Number **UT-MW-59** Sample Number(s) **1130891** **11308910f**

### Initial Field Data and Measurements

Depth of Well **17.95** Reference Used **TOR**  
 Depth to Water **11.67** PID/FID Reading **-**  
 Height of Column **6.28** Interface **Yes / NO** If yes, Depth **-** Lighter / Heavier  
 Well Casing Diameter **1.5"** Material **PVC** General Condition **OK** **Bad**  
 Protector **Road Box** Stickup Casing Secure ☒  
 Ground to Reference Collar Intact ☒  
 Comments Cover Locked ☒  
 Other (describe)

### Development Information

Parameter Time	Depth to Water	Pump Setting	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	LOG Comment
11:20	11.67	300	120	5.48	18.17	3827	6.64	12.3	0.43	60.4	4.6
11:30	12.02			1.2	18.19	3819	6.64	13.3	0.43	38.2	4.5
11:40	12.02			2.4	18.32	3712	6.65	20.0	0.22	19.6	2.4
11:50				3.6	18.32	3624	6.63	10.3	0.24	14.7	2.6
12:00				4.8	18.51	3541	6.61	8.3	0.20	10.57	2.1
12:10				6	18.44	3429	6.63	10.5	0.17	7.61	1.8
12:20				7.2	18.43	3420	6.62	10.5	0.14	5.11	1.5
12:25				7.8	18.43	3419	6.62	10.4	0.16	4.35	1.8
12:30				8.4	18.43	3414	6.62	10.5	0.15	4.05	2.0
12:35				9	18.43	3409	6.62	10.4	0.15	4.02	1.9
12:40				9.6							

Development Method **Peristaltic Pump** / Bailer / Inertial Pump / Other

Sample Field Treatment *If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!*

Field Decontamination? **Yes / NO** If Yes, with what?

Waste Container ID **728342**

### Additional Comments

Field Personnel **Heather Grimm**  
**Robert Zurkowski**

Signature *[Signature]*





Loureiro Engineering Associates, Inc.

## FIELD SAMPLING RECORD LOW FLOW WELL SAMPLE

LEA Comm. No. **88UT907.001**  
Project **UTC P&W Willowpond Quarterly GW Mon.**  
Location **P&W East Hartford, East Hartford, CT**  
Client **Pratt & Whitney Division - JTot**

Page **8** of **10**  
Date **9/1/09**  
Sample Time **13:21**

Monitoring Well Number **WT-MW-40** Sample Number(s) **1130897, 1130897uf**

### Initial Field Data and Measurements

Depth of Well **11.90** Reference Used **TOC**  
Depth to Water **11.90** PID/FID Reading \_\_\_\_\_  
Height of Column **5.84** Interface Yes ☒ No ☐ If yes, Depth \_\_\_\_\_ Lighter / Heavier \_\_\_\_\_  
Well Casing Diameter **1/2"** Material **PVC** General Condition **OK** Bad ☐  
Protector **Road Box / Stickup** Casing Secure ☒  
Ground to Reference **TOC** Collar Intact ☒  
Comments \_\_\_\_\_ Cover Locked ☒  
Other (describe) \_\_\_\_\_

### Development Information

Parameter Time	Depth to Water	Pump Setting	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	Comment
12:40		350	150	0.0							START PURGING
13:00	*			3.0	17.84	4839	6.70	-1279	0.28	9.16	
13:10	*			4.0	17.68	4862	6.71	-1293	0.32	3.11	
13:15	*			4.5	17.68	4871	6.71	-1288	0.38	3.62	
13:20	*			5.0	17.07	4871	6.71	-1284	0.40	2.37	
<div>HLG</div> <div>SAMPLED</div>											

Development Method **Peristaltic Pump** / Bailer / Inertial Pump / Other \_\_\_\_\_

Sample Field Treatment *If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!*

Field Decontamination? Yes ☒ No ☐ If Yes, with what? \_\_\_\_\_

Waste Container ID **718342**

Additional Comments **\* Not measured due to 1/2" diameter**

Field Personnel **Heather Grimm**  
**Robert Zurkowski**

Signature  
*Heather Grimm*



Loureiro Engineering Associates, Inc.

# FIELD SAMPLING RECORD

## LOW FLOW WELL SAMPLE

LEA Comm. No. 88UT907.001  
Project UTC P&W Willowpond Quarterly GW Mon.  
Location P&W East Hartford, East Hartford, CT  
Client Pratt & Whitney Division - JTot

Page 9 of 90  
Date 9/11/09  
Sample Time 14:40

Monitoring Well Number WT-MW-58 Sample Number(s) 1130892 1130892 of

### Initial Field Data and Measurements

Depth of Well 17.95 Reference Used TOP  
Depth to Water 11.12 PID/FID Reading  
Height of Column 6.83 Interface Yes / ☒ No If yes, Depth Lighter / Heavier  
Well Casing Diameter 1.5" Material PVC General Condition OK Bad  
Protector Road Box Stickup Casing Secure ☒  
Ground to Reference Collar Intact ☒  
Comments Cover Locked ☒  
BOLTS RUSTED IN PLACE COVER BROKEN Other (describe)

### Development Information

Parameter	Depth to Water	Pump Setting	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	108 Comment
Time											
13:30	17.95	300	120	START PURGING							
13:40	18.19			1.2	17.06	1589	6.18	16.2	0.65	7.99	6.7
13:50	18.19			2.4	17.03	1589	6.18	10.2	0.38	7.56	3.9
14:00				3.6	17.00	1575	6.16	13.1	0.22	7.24	2.3
14:10				4.8	16.96	1558	6.14	9.3	0.21	5.28	2.2
14:20				6	16.82	1540	6.13	7.8	0.20	4.33	2.1
14:30				7.2	16.82	1534	6.13	7.5	0.20	2.68	2.1
14:35				7.8	16.82	1536	6.13	7.7	0.21	2.14	2.0
14:40				8.4	16.82	1535	6.13	7.8	0.26	1.98	2.1

Development Method Peristaltic Pump / Bailer / Inertial Pump / Other

Sample Field Treatment If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!

Field Decontamination? Yes / ☒ No If Yes, with what?

Waste Container ID 728342

### Additional Comments

Field Personnel Heather Grimm  
Robert Zurkowski

Signature [Signature]

# CHAIN OF CUSTODY

 495 TECHNOLOGY CENTER WEST • BUILDING ONE  
 MARLBOROUGH, MA 01752  
 TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:

ACCUTEST QUOTE #:

K18212009-453

1 of 3

CLIENT INFORMATION		FACILITY INFORMATION		ANALYTICAL INFORMATION										MATRIX CODES	
<b>NAME</b> <u>Loureira Engineering Associates</u> <b>ADDRESS</b> <u>100 Northwest Drive</u> <u>Plainville CT 06062</u> <b>CITY</b> <u>Plainville</u> <b>STATE</b> <u>CT</u> <b>ZIP</b> <u>06062</u> <b>SEND REPORT TO:</b> <u>Robin McKinney</u> <b>PHONE #</b> <u>860-410-3000</u>		<b>PROJECT NAME</b> <u>Willow Brook Pond</u> <b>LOCATION</b> <u>High Whitney, East Hartford</u> <b>PROJECT NO.</b> <u>8805907</u> <b>FAX #</b> _____		<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">           VOCs 82608            PCBs 8082            CT RCP            Total metals (Pb, Ni, Cu, Mn, Fe)         </div> <div></div> </div>										DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OL - OIL LIQ - OTHER LIQUID SOL - OTHER SOLID	
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION		MATRIX	# OF BOTTLES	PRESERVATION						LAB USE ONLY			
		DATE	TIME			SAMPLED BY:	HCl	NaOH	HNO3	H2SO4	NONE				
	1130891	9/11/09	1240	RZ	GW	2	X					X			
	1130891		1240	RZ		4						X	X		
	1130891uf		1240	RZ		1		X				X			
	1130890		1025	RZ		2	X					X			
	1130890		1025	RZ		2						X	X		
	1130890uf		1025	RZ		1		X				X			
	1130897		1321	HG		2						X	X		
	1130897		1321	HG		4						X	X		
	1130897uf		1321	HG		1						X			
	1130895		1029	HG		2						X	X		
	1130895		1029	HG		4						X	X		
DATA TURNAROUND INFORMATION		DATA DELIVERABLE INFORMATION				COMMENTS/REMARKS									
<input checked="" type="checkbox"/> 14 DAYS STANDARD <input type="checkbox"/> 7 DAYS RUSH <input type="checkbox"/> 48 HOUR EMERGENCY <input type="checkbox"/> OTHER _____ 14 DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED		<input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> COMMERCIAL "B" <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> STATE FORMS <input type="checkbox"/> OTHER (SPECIFY) _____				Provide CT RCP analytical lists for VOCs & PCBs & provide CT RCP report									
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY															
RELINQUISHED BY SAMPLER:		DATE TIME: <u>9/11/09 16:40</u>		RECEIVED BY: <u>1. B. [Signature]</u>		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:					
1. <u>[Signature]</u>				2. <u>[Signature]</u>		2.				2.					
RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:					
3.				3.		4.				4.					
RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		SEAL #		PRESERVE WHERE APPLICABLE		ON ICE		TEMPERATURE			
5.				5.				<input type="checkbox"/>		<input type="checkbox"/>		C			



# CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE  
MARLBOROUGH, MA 01752  
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:

ACCUTEST QUOTE #:

101 - 2 of 3

10217009-453

CLIENT INFORMATION		FACILITY INFORMATION		ANALYTICAL INFORMATION										MATRIX CODES	
<b>NAME</b> Loureiro Engineering Associate <b>ADDRESS</b> 100 Northwest Drive <b>CITY, STATE, ZIP</b> Plainville CT 06062 <b>SEND REPORT TO:</b> <b>PHONE #</b> Robin McKinney 860-410-3000		<b>PROJECT NAME</b> Willow Brook Pond <b>LOCATION</b> Pratt Whitney, East Hartford <b>PROJECT NO.</b> 8807907 <b>FAX #</b>		<b>Matrix Codes:</b> DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OI - OIL LIQ - OTHER LIQUID SOL - OTHER SOLID										<b>LAB USE ONLY</b>	
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION			MATRIX	# OF BOTTLES	PRESERVATION					VOCs	PCBs	CT EPH	Total RCP & Metals
		DATE	TIME	SAMPLED BY:			HCl	NaOH	HNO3	H2SO4	NONE				
	1130949	9/11/09	1300	HG	GW	1	X					X			
	1130950		1452	HG		2	X					X			
	1130950		1452	HG		2						X	X		
	1130950uf		1452	HG				X				X		X	
	1130894		1410	HG		2						X			
	1130893		1400	HG		2	X					X			
	1130893		1400	HG		2						X			
	1130893uf		1400	HG		1		X				X		X	
	1130892		1440	RZ		2	X					X			
	1130892		1440	RZ		4						X	X		
	1130892uf		1440	RZ		1		X				X		X	
DATA TURNAROUND INFORMATION		DATA DELIVERABLE INFORMATION				COMMENTS/REMARKS									
<input checked="" type="checkbox"/> 14 DAYS STANDARD <input type="checkbox"/> 7 DAYS RUSH <input type="checkbox"/> 48 HOUR EMERGENCY <input type="checkbox"/> OTHER 14 DAY TURNAROUND HARDCOPY, EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED		<input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> COMMERCIAL "B" <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> STATE FORMS <input type="checkbox"/> OTHER (SPECIFY)				Provide CT RCP analytical lists for VOCs & PCBs & provide CT RCP report									
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY															
RELINQUISHED BY: 1. [Signature]		DATE TIME: 9/11/09 16:20		RECEIVED BY: 1. [Signature]		RELINQUISHED BY: 2.		DATE TIME:		RECEIVED BY: 2.					
RELINQUISHED BY: 3.		DATE TIME:		RECEIVED BY: 3.		RELINQUISHED BY: 4.		DATE TIME:		RECEIVED BY: 4.					
RELINQUISHED BY: 5.		DATE TIME:		RECEIVED BY: 5.		SEAL #		PRESERVE WHERE APPLICABLE		ON ICE		TEMPERATURE C			



## CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE

MARLBOROUGH, MA 01752

TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:

**ACCUTEST QUOTE #:**

KB22009-463

[illegible]



# DAILY FIELD REPORT

Loureiro Engineering Associates, Inc.

LEA Comm. No. 88UT907.001 Page 1 of 17  
Project UTC P&W Willowpond Quarterly GW Mon. Date 12/8/09  
Location P&W East Hartford, East Hartford, CT  
Client Pratt & Whitney Division - JTot

Arrived at Site 8:00 Departed from Site 16:30 Vehicle ST-6W Van  
Site Activities Odometer (Start)Re turn

☒ Soil Sampling ☐ Geoprobe Work  
☒ Groundwater Sampling ☐ Concrete Coring  
☐ Surface Water Sampling ☐ Construction  
☐ Vapor/Air Sampling ☐ Waste Management  
☐ Concrete Sampling  
☐ Other Sampling  
☐ Other Sampling  
☐ Well Development  
☐ Inspection  
☐ Site Walk Over  
☐ Surveying  
☐ Other (Describe)

Non-productive Time  
☒ None ☐ Weather  
☐ Equipment Breakdown ☐ Missing Equipment  
☐ Late ☐ Other (Describe)

Quality Assurance Checks  
Yes N/A No  
☒ Sample labels complete  
☒ Sample/cooler seals OK  
☒ All samples obtained  
☒ Chains of custody  
☒ All forms/logs complete  
☒ Site condition OK  
☒ Site H&S Plan on site  
☒ Instruments calibrated

Residuals Disposition  
Item Approx. Amount Container ID  
Soil/Solid  
Groundwater 22gal 728342  
Decon Fluid  
PPE  
Other

Weather Conditions  
Temperature 40°s Precipitation — Wind light  
Comments

Checked By  
Robin McKenney

Expendable Items Used			Equipment Used		
Qty	Item	LEA Number	Qty	Item	LEA Number
	Bailer, Disposable (specify size)	090		Generator 3500 Watt	153
	Drum, Closed Top 55 Gallon	086		Meter, Conductivity	022
	Filter, In Line	024		Meter, pH/Temp	021
X	Miscellaneous Health & Safety Items	060	1	Miscellaneous Small Tools & Equipment	152
	Tubing, 1/2", NOS	007		Pump, Grundfos	073
X	Tubing, 2 1/2", NOS 1/4"	008	4	Pump, Peristaltic (spec. Master or Isco)	040
1	Water, Distilled	025		Pump, Submersible	201
				Pump, Watern	038
			4	Turbidimeter	023
			1	VOC Analyzer, Photovac 2020 (PID)	012
			4	Water Level Indicator	028
			4	Water Quality Meter w/Flow Cell	070

Field Personnel Nate Emmons Alex Clarke  
C. Scott Brown Rich D'Amico  
Signature  
Nate Emmons



Loureiro Engineering Associates, Inc.

## DAILY FIELD REPORT

### Supplemental Sheet

LEA Comm. No. 88UT907.001  
Project UTC P&W Willowpond Quarterly GW Mon.  
Location P&W East Hartford, East Hartford, CT  
Client Pratt & Whitney Division - JTot

Page 2 of 17  
Date 12/8/09

#### Description of Site Activities

On Site 8:00

S. Brown + A. Clarke onsite getting equipment ready  
Calibration, Getting Pratt Security to unlock gates ect.  
N. Emmons completed prejob with Mark Hoff.  
9:00 Gate unlocked and started moving equipment  
N. Emmons began water levels. upper Pond + lower pond have  
been drained to very low water levels.  
10:45 R. D'Amico onsite (car problems) began sampling  
11:00 N. Emmons began sampling  
15:30 S. Brown + N. Emmons completed sampling and began  
clean up + planning for next day  
16:00 A. Clarke + R. D'Amico completed sampling  
16:15 S. Brown meets Benny from Accutest for sample  
pickup  
N. Emmons takes waste to waste treat  
16:30 off site

AP

Field Personnel

Nate Emmons  
C. Scott Brown

Alex Clarke  
Rich D'Amico

Signature

Nate Emmons





Loureiro Engineering Associates, Inc.

**FIELD SAMPLING RECORD**  
**MISCELLANEOUS SAMPLES**

LEA Comm. No. 88UT907.001  
Project UTC P&W Willowpond Quarterly GW Mon.  
Location P&W East Hartford, East Hartford, CT  
Client Pratt & Whitney Division - JTot

Page 3 of 17  
Date 12/8/09

Sample ID	Location ID	Time	Sample Type	Depth (ft)	PID/FID Reading	Comments	Waste Cont. ID
1136026	Trip Blank	10:00	BKT			Trip Blank	
1136027	Equipment Blank	15:50	BKE Ag			Equipment Blank	

Field Personnel Nate Emmons Alex Clarke  
C. Scott Brown Rich D'Amico

Signature  
*Nate Emmons*



Loureiro Engineering Associates, Inc.

# DAILY FIELD REPORT CALIBRATION RECORD

LEA Comm. No.		88UT907.001						Page <u>4</u> of <u>17</u>	
Project		UTC P&W Willowpond Quarterly GW Mon.						Date <u>12/8/09</u>	
Location		P&W East Hartford, East Hartford, CT							
Client		Pratt & Whitney Division - JTot							
pH Meter/Serial #		<u>01M0524</u>	<u>AA</u>	<u>8:30</u>	<u>4.0</u>	<u>7.0</u>	<u>10.0</u>	<u>1000</u>	<u>109</u>
		Time	pH 4.01	pH 7.00	pH 10.01	Spec. Cond.	ORP	DO	
Initial Calibration		<u>0261124 AF</u>	<u>8:15</u>	<u>4.0</u>	<u>7.0</u>	<u>10.0</u>	<u>1000</u>	<u>109</u>	
Calibration Check		<u>0401549 AC</u>	<u>8:15</u>	<u>4.0</u>	<u>7.0</u>	<u>10.0</u>	<u>1000</u>	<u>109</u>	
Calibration Check			<u>8:15</u>	<u>4.0</u>	<u>7.0</u>	<u>10.0</u>	<u>1000</u>	<u>109</u>	
Turbidity Meter/Serial #		<u>LEA#5</u>	<u>3522</u>						
		Time	0 NTU	20 NTU	100 NTU	800 NTU			
Initial Calibration		<u>3521</u>	<u>9:00</u>	<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>		
Calibration Check		<u>3520</u>	<u>9:00</u>	<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>		
Calibration Check		<u>3519</u>	<u>10:45</u>	<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>		
PID Meter/Serial #									
		Time	Standard	Meter Reading	Zero with				
Initial Calibration									
Calibration Check									
Calibration Check									
Balance/Serial #									
		Time	Standard	Balance					
Initial Calibration									
Calibration Check									
Calibration Check									
Comments									
Field Personnel									
Nate Emmons		Alex Clarke		Signature <u>Nate Emmons</u>					
C. Scott Brown		Rich D'Amico							



Loureiro Engineering Associates, Inc.

# FIELD SAMPLING RECORD MONITORING WELL INVENTORY

LEA Comm. No. 88UT907.001 Page 5 of 17  
Project UTC P&W Willowpond Quarterly GW Mon. Date 12/8/09  
Location P&W East Hartford, East Hartford, CT  
Client Pratt & Whitney Division - JTot

Sample ID	Location ID	Time	Predicted Depth		Actual Depth		PID/FID	Reference Elevation	Comments
			of Well	to Water	of Well	to Water			
2233796	WT-MW-49	9:00			7.50	3.64			
2233797	WT-MW-46	9:15			12.65	5.59			
2233798	WT-MW-47	9:25			14.35	9.35			Needs Drainage
2233799	WT-MW-57	9:35			18.11	11.83			Needs Drainage
2233800	WT-MW-48	9:45			7.55	4.68			
2233801	WT-MW-45	9:55			13.66	10.42			
2233802	STAR Gauge				Dry				Pond has been Drained
2233803	WT-MW-50	10:15			5.22	2.25			
2233804	WT-MW-58	10:30			17.77	14.39			
2233805	WT-MW-59	10:40			17.86	13.15			
2233806	WT-MW-195R	9:00			11.78	11.45			
2233807	WT-MW-44	9:30			13.59	10.51			
2233808	WT-MW-40	10:00			17.74	12.99			
2233809	WT-MW-42	9:30			8.75	3.50			
2233810	WT-MW-41	9:40			9.47	5.03			
2233811	WT-MW-43	9:00			11.90	8.81			
2233812									
2233813									

Field Personnel

Nate Emmons

C. Scott Brown

Alex Clarke

Rich D'Amico

Signature

Nate Emmons



Loureiro Engineering Associates, Inc.

## FIELD SAMPLING RECORD

## LOW FLOW WELL SAMPLE

LEA Comm. No. 88UT907.001 Page 6 of 17  
 Project UTC P&W Willowpond Quarterly GW Mon. Date 12/8/09  
 Location P&W East Hartford, East Hartford, CT Sample Time 13:00  
 Client Pratt & Whitney Division - JTot

Monitoring Well Number WT-MW-49 Sample Number(s) 1136015 1136015 of

## Initial Field Data and Measurements

Depth of Well 7.50 Reference Used T of R  
 Depth to Water 3.64 PID/FID Reading  
 Height of Column Interface Yes (No) If yes, Depth Lighter / Heavier  
 Well Casing Diameter Material PVC General Condition OK Bad  
 Protector Road Box (Stickup) Casing Secure  
 Ground to Reference 3' Collar Intact  
 Comments Cover Locked  
 Other (describe)

## Development Information

Parameter	Depth to Water	Pump Setting	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	Comment
Time											
11:15	3.64	300	150								Purging
11:35	3.95		150	3	9.83	427	6.63	37.7	72.3	8.14	
11:45	4.20		150	4.5	9.80	427	6.58	35.8	66.5	7.46	
11:55	4.43		100	6	10.01	426	6.46	20.1	62.4	6.32	
12:05	4.65		100	7	10.54	429	6.30	7.5	60.4	5.57	
12:15	4.70		100	8	10.96	435	6.26	-15.9	59.4	4.76	
12:25	4.70		150	9.5	10.60	443	6.25	-37.9	59.4	3.01	
12:35	4.70		150	11	10.66	446	6.25	-40.3	59.4	2.91	
12:45	4.70		150	12.5	10.63	447	6.25	-42.5	59.4	2.76	
12:50	4.70		150	13.25	10.61	447	6.25	-43.3	59.5	2.04	
12:55	4.70		150	14.00	10.61	447	6.25	-43.4	59.4	1.87	
13:00	4.70	300	150	14.75	10.63	447	6.24	-43.1	59.4	1.85	
Sample											

Development Method Peristaltic Pump / Bailer / Inertial Pump / Other

Sample Field Treatment If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!

Field Decontamination? (Yes) No If Yes, with what? Meth on WLI  
 Waste Container ID 728342

## Additional Comments

Field Personnel Nate Emmons Alex Clarke Signature  
 C. Scott Brown Rich D'Amico



Loureiro Engineering Associates, Inc.

## FIELD SAMPLING RECORD

## LOW FLOW WELL SAMPLE

LEA Comm. No. 88UT907.001 Page 7 of 17  
 Project UTC P&W Willowpond Quarterly GW Mon. Date 12/8/09  
 Location P&W East Hartford, East Hartford, CT Sample Time 1505  
 Client Pratt & Whitney Division - JTot

Monitoring Well Number WT-mw-48 Sample Number(s) 1136016 1136016

## Initial Field Data and Measurements

Depth of Well 7.55 Reference Used T of R  
 Depth to Water 4.68 PID/FID Reading  
 Height of Column Interface Yes (No) If yes, Depth Lighter / Heavier  
 Well Casing Diameter 2" Material PVC General Condition OK Bad  
 Protector Road Box Stickup Casing Secure  
 Ground to Reference 18" Collar Intact  
 Comments Cover Locked  
 Other (describe)

## Development Information

Parameter	Depth to Water	Pump Setting	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	Comment
Time											
13:40	4.68	300	150								Purging
14:00	4.98		150		9.25	625	6.72	-149.0	57.4	16.7	
14:10	5.21		150		8.93	646	6.75	-156.1	56.3	11.5	
14:20	5.60		150		9.19	674	6.81	-162.6	58.4	8.06	
14:30	5.63		100		9.14	687	6.85	-163.4	59.4	4.88	
14:40	5.63		100		9.15	690	6.87	-162.0	59.4	2.19	
14:45	5.63		150		9.12	693	6.87	-162.1	59.4	2.11	
15:00	5.63		150		9.11	693	6.87	-162.0	59.4	2.05	
15:05	5.63	300	150		9.11	694	6.87	-162.0	59.4	1.97	
Sample											

Development Method Peristaltic Pump Bailer / Inertial Pump / Other

Sample Field Treatment If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!

Field Decontamination? Yes No If Yes, with what Meth on WTI  
 Waste Container ID 728342

## Additional Comments

Field Personnel Nate Emmons Alex Clarke  
 C. Scott Brown Rich D'Amico  
 Signature: [Signature]

*Signature*





# FIELD SAMPLING RECORD

## LOW FLOW WELL SAMPLE

Loureiro Engineering Associates, Inc.

LEA Comm. No. 88UT907.001 Page 9 of 17  
Project UTC P&W Willowpond Quarterly GW Mon. Date 12/8/09  
Location P&W East Hartford, East Hartford, CT Sample Time 11:00  
Client Pratt & Whitney Division - JTot

Monitoring Well Number WT-MW-44 Sample Number(s) 1136011 11360116F

### Initial Field Data and Measurements

Depth of Well 13.59 Reference Used type of piezometer  
Depth to Water 10.51 PID/FID Reading 0.0  
Height of Column 3.08 Interface Yes / No If yes, Depth Lighter / Heavier  
Well Casing Diameter 1/2" Material pc General Condition OK Bad  
Protector Road Box / Stickup Casing Secure  
Ground to Reference Collar Intact  
Comments one broken bolt hole in cover Cover Locked  
Other (describe)

### Development Information

Parameter	Depth to Water	Pump Setting	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	Comment
Time											DO%
0940	10.51	300	100	0							
0950					13.37	439	6.65	38.3	5.37	6.36	76.5
1000					14.08	429	6.37	35.5	5.32	1.51	51.8
1020					14.09	432	6.37	37.1	5.33	1.43	51.9
1030					14.05	432	6.37	45.0	5.37	1.27	52.4
1040					14.41	445	6.37	48.1	5.54	1.32	53.6
1045					14.61	459	6.36	59.4	5.47	0.89	53.8
1050				7	14.58	459	6.35	59.7	5.45	1.12	53.5
1055				7.5	14.61	459	6.36	59.8	5.44	0.97	53.6
1100				8	14.57	460	6.36	59.8	5.44	1.41	53.5

Development Method Peristaltic Pump / Bailer / Inertial Pump / Other

Sample Field Treatment If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!

Field Decontamination? Yes / No If Yes, with what?  
Waste Container ID 728342

### Additional Comments

Field Personnel Nate Emmons Alex Clarke  
C. Scott Brown Rich D'Amico

Signature





Loureiro Engineering Associates, Inc.

# FIELD SAMPLING RECORD

## LOW FLOW WELL SAMPLE

LEA Comm. No. 88UT907.001 Page 10 of 17  
 Project UTC P&W Willowpond Quarterly GW Mon. Date 12/8/09  
 Location P&W East Hartford, East Hartford, CT Sample Time 1310  
 Client Pratt & Whitney Division - JTot

Monitoring Well Number WT-MW-40 Sample Number(s) 1136012 1136012P

### Initial Field Data and Measurements

Depth of Well 17.34 Reference Used type of piezometer  
 Depth to Water 12.99 PID/FID Reading  
 Height of Column 4.75 Interface Yes (No) If yes, Depth Lighter / Heavier  
 Well Casing Diameter 1/2" Material pc General Condition OK Bad  
 Protector Road Box / Stickup Casing Secure  
 Ground to Reference Collar Intact  
 Comments one bolt hole on cover broken Cover Locked  
 Other (describe)

### Development Information

Parameter	Depth to Water	Pump Setting	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	Comment DO%
Time											
1210	12.99	300	110	0							
1220					14.36	3790	6.98	-112.0	1.26	2.46	12.4
1230					14.87	3989	7.04	-149.8	.39	1.52	3.9
1240					14.88	3996	7.04	-155.0	.32	.56	3.2
1250					14.99	4013	7.04	-158.9	.24	.39	2.5
1255					14.73	3997	7.04	-159.4	.23	.41	2.3
1300				5.5	14.72	3996	7.04	-159.6	.23	.24	2.3
1305				6.1	14.73	3996	7.04	-159.9	.23	.31	2.4
1310				6.6	14.72	3996	7.04	-159.7	.23	.36	2.3

Development Method Peristaltic Pump / Bailer / Inertial Pump / Other

Sample Field Treatment If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!

Field Decontamination? Yes / No If Yes, with what?  
 Waste Container ID 728342

### Additional Comments

Field Personnel Nate Emmons Alex Clarke  
 C. Scott Brown Rich D'Amico

Signature



Loureiro Engineering Associates, Inc.

## FIELD SAMPLING RECORD

## LOW FLOW WELL SAMPLE

LEA Comm. No. 88UT907.001

Page 11 of 17

Project UTC P&amp;W Willowpond Quarterly GW Mon.

Date 12/8/09

Location P&amp;W East Hartford, East Hartford, CT

Sample Time 15:15

Client Pratt &amp; Whitney Division - JTot

Monitoring Well Number WT-MW-57

Sample Number(s) 1136024 1136010 1136010f

## Initial Field Data and Measurements

Depth of Well 18.11

Reference Used top of pvc inser

Depth to Water 11.74

PID/FID Reading 0.0

Height of Column 6.37

Interface Yes (No) If yes, Depth Lighter / Heavier

Well Casing Diameter 1.5"

Material pc

General Condition OK Bad

Protector Road Box / Stickup

Casing Secure

Ground to Reference

Collar Intact

Comments

Cover Locked

Other (describe)

## Development Information

Parameter Time	Depth to Water	Pump Setting	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	Comment
1405	11.74	300	110	0							Start purging
1415	12.21				13.83	680	6.46	-265	2.08	245	17.7
1425	12.24				14.91	1342	6.35	-52.5	.70	216	6.9
1435	12.25				15.20	452	6.35	-67.4	.52	125	5.2
1445	12.20				15.62	2392	6.34	-68.6	.39	32.3	4.0
1455	12.19				15.49	2482	6.31	-67.7	.31	18.2	3.2
1505	12.20			6.6	15.44	2499	6.31	-67.7	.39	6.41	4.0
1510	12.20			7.2	15.48	2505	6.31	-67.9	.37	4.36	3.8
1515	12.20			7.7	15.37	2510	6.30	-67.9	.39	4.89	3.9

Development Method Peristaltic Pump / Bailer / Inertial Pump / Other

Sample Field Treatment If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!

Field Decontamination? Yes / No If Yes, with what?

Waste Container ID 728342

## Additional Comments

Field Personnel

Nate Emmons

Alex Clarke

C. Scott Brown

Rich D'Amico

Signature



Loureiro Engineering Associates, Inc.

## FIELD SAMPLING RECORD

### LOW FLOW WELL SAMPLE

LEA Comm. No. 88UT907.001 Page 12 of 17  
Project UTC P&W Willowpond Quarterly GW Mon. Date 12/8/89  
Location P&W East Hartford, East Hartford, CT Sample Time 4:20  
Client Pratt & Whitney Division - JTot

Monitoring Well Number WT-MW-45 Sample Number(s) 1136014 1136014-J

#### Initial Field Data and Measurements

Depth of Well 10.42' Reference Used TOL  
Depth to Water 13.66' PID/FID Reading 6.0  
Height of Column 6.76' Interface NA Yes / No If yes, Depth Lighter / Heavier

Well Casing Diameter 2.5" Material                      General Condition OK Bad  
Protector Road Box / Stickup Casing Secure                       
Ground to Reference                      Collar Intact                       
Comments                      Cover Locked                       
Other (describe)                     

#### Development Information

Parameter	Depth to Water	Pump Setting	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	Comment
Time											
1420	13.66	300	100	0	11.69	978	6.81	-110.8	3.62	20.2	Initial
1425	<del>13.66</del>	<del>300</del>	<del>100</del>	<del>0</del>	12.41	890	6.61	-119.2	4.01	15.2	
1435	<del>13.66</del>	<del>300</del>	<del>100</del>	<del>0</del>	12.21	881	6.52	-110.1	4.15	12.6	
1445	<del>13.66</del>	<del>300</del>	<del>100</del>	<del>0</del>	12.05	875	6.43	-121.8	4.65	8.7	
1455	<del>13.66</del>	<del>300</del>	<del>100</del>	<del>0</del>	17.04	873	6.35	-120.9	5.05	6.3	
1505	<del>13.66</del>	<del>300</del>	<del>100</del>	<del>0</del>	11.99	870	6.37	-121.1	5.83	4.8	
1515	<del>13.66</del>	<del>300</del>	<del>100</del>	<del>0</del>	12.01	871	6.38	-121.8	5.86	3.2	
1520	<del>13.66</del>	<del>300</del>	<del>100</del>	<del>0</del>	12.00	870	6.38	-121.7	5.87	3.4	Sample

Development Method Peristaltic Pump / Bailer / Inertial Pump / Other

Sample Field Treatment If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!

Field Decontamination? Yes / No No If Yes, with what?                       
Waste Container ID 28342

#### Additional Comments

Field Personnel Nate Emmons Alex Clarke  
C. Scott Brown Rich D'Amico

Signature



Loureiro Engineering Associates, Inc.

# FIELD SAMPLING RECORD

## LOW FLOW WELL SAMPLE

LEA Comm. No. 88UT907.001 Page 13 of 17  
 Project UTC P&W Willowpond Quarterly GW Mon. Date 12/8/09  
 Location P&W East Hartford, East Hartford, CT Sample Time 12:55  
 Client Pratt & Whitney Division - JTot

Monitoring Well Number WT-MW-50 Sample Number(s) 1136013 1136028 11360280F 11360130F

### Initial Field Data and Measurements

Depth of Well 5.22' Reference Used TOL  
 Depth to Water 2.75' PID/FID Reading 0.0  
 Height of Column 2.97' Interface N/A Yes/No If yes, Depth Lighter/Heavier  
 Well Casing Diameter 1.5" Material PVC General Condition OK Bad  
 Protector Road Box / Stickup Casing Secure  
 Ground to Reference 3' Collar Intact  
 Comments Cover Locked  
 Other (describe)

### Development Information

Parameter	Depth to Water	Pump Setting	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	Comment
Time											
1130	N/A	300	100	0	7.84	9779	7.14	-82.9	1.93	40.5	Initial
1135					7.51	4315	7.02	-90.7	1.96	50.4	
1145					7.43	4486	6.91	-174.2	1.34	36.7	
1155					7.52	4591	6.75	-141.8	1.37	21.8	
1205					7.30	4611	6.71	-165.5	1.36	16.7	
1215					7.78	4605	6.72	-169.9	1.31	8.6	
1225					7.77	4601	6.73	-170.5	1.23	6.2	
1235					7.27	4699	6.74	-176.2	1.21	5.1	
1245					7.78	4598	6.74	-179.9	1.20	4.8	
1250					7.77	4597	6.74	-176.7	1.18	3.1	
1255				8.5	7.77	4598	6.74	-177.9	1.19	2.9	Sample

Development Method Peristaltic Pump / Bailer / Inertial Pump / Other

Sample Field Treatment If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!

Field Decontamination? Yes (No) If Yes, with what?  
 Waste Container ID 728342

### Additional Comments

Field Personnel Nate Emmons Alex Clarke  
 C. Scott Brown Rich D'Amico

Signature

Field Personnel	Nate Emmons C. Scott Brown	Alex Clarke Rich D'Amico	Signature <i>Rich D'Amico</i>
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**FIELD SAMPLING RECORD**  
**LOW FLOW WELL SAMPLE**

LEA Comm. No.	88UT907.001
Project	UTC P&W Willowpond Quarterly GW Mon.
Location	P&W East Hartford, East Hartford, CT
Client	Pratt & Whitney Division - JTot

Page 15 of 17  
Date 12/4/09  
Sample Time 11:20

Monitoring Well Number WT-mw-42 Sample Number(s) 1136008 113600801

### Initial Field Data and Measurements

Depth of Well	8.75	Reference Used	TOC		
Depth to Water	3.50	PID/FID Reading	0.0		
Height of Column	5.25	Interface	Yes / <input checked="" type="radio"/> No	If yes, Depth	Lighter / Heavier
Well Casing Diameter	0.5"	Material	PVC	General Condition	OK      Bad
Protector	Road Box / Stickup			Casing Secure	<input checked="" type="checkbox"/>
Ground to Reference	TOC			Collar Intact	<input checked="" type="checkbox"/>
Comments				Cover Locked	<input checked="" type="checkbox"/>

### Development Information

[illegible]Development Method Peristaltic Pump / Bailer / Inertial Pump / Other

**Sample Field Treatment** *If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!*

Field Decontamination? Yes / ☒ No If Yes, with what?

Waste Container ID 728342

Additional Comments *Not App to Check water level due to diameter of well.*

Field Personnel	Nate Emmons <u>C. Scott Brown</u>	Alex Clarke Rich D'Amico	Signature <u>See # Brown</u>
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## FIELD SAMPLING RECORD

### LOW FLOW WELL SAMPLE

LEA Comm. No.	88UT907.001
Project	UTC P&W Willowpond Quarterly GW Mon.
Location	P&W East Hartford, East Hartford, CT
Client	Pratt & Whitney Division - JTot

Page 16 of 17  
Date 12/4/09  
Sample Time 13:00

Monitoring Well Number WT-MW-41 Sample Number(s) 1136009 1136009 vf

### Initial Field Data and Measurements

Depth of Well	9.77	Reference Used	TOL	
Depth to Water	5.03	PID/FID Reading	0.0	
Height of Column	4.44	Interface	Yes / <input checked="" type="radio"/> No	If yes, Depth _____ Lighter / Heavier
Well Casing Diameter	0.5"	Material	PVC	General Condition
Protector	Road Box	Stickup		OK Bad
Ground to Reference	TOL			
Comments				

### Development Information

[illegible]Development Method Peristaltic Pump / Bailer / Inertial Pump / Other

**Sample Field Treatment** *If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!*

Field Decontamination? Yes / ~~No~~ If Yes, with what? \_\_\_\_\_  
Waste Container ID 728342

Additional Comments Not Able to check water level due to diameter of well.

Field Personnel	Nate Emmons	Alex Clarke	Signature
	C. Scott Brown	Rich D'Amico	<i>[Signature]</i>

**FIELD SAMPLING RECORD**  
**LOW FLOW WELL SAMPLE**

LEA Comm. No.	88UT907.001	Page <u>17</u> of <u>17</u>
Project	UTC P&W Willowpond Quarterly GW Mon.	Date <u>12/4/09</u>
Location	P&W East Hartford, East Hartford, CT	Sample Time <u>9:30</u>
Client	Pratt & Whitney Division - JTot	

Monitoring Well Number WT-MW-<sup>65</sup>~~43~~ 43 Sample Number(s) 1136007 113600701

### Initial Field Data and Measurements

Depth of Well 11.90      Reference Used ToC  
 Depth to Water 8.81      PID/FID Reading 0.0  
 Height of Column 3.09      Interface Yes / No      If yes, Depth \_\_\_\_\_ Lighter / Heavier \_\_\_\_\_  
 Well Casing Diameter 0.5"      Material PVC      General Condition      OK      Bad  
 Protector Road Box / Stickup      Casing Secure      ☒      ☐  
 Ground to Reference ToC      Collar Intact      ☒      ☐  
 Comments \_\_\_\_\_      Cover Locked      ☒      ☐

### Development Information

[illegible]Development Method Peristaltic Pump / Bailer / Inertial Pump / Other

**Sample Field Treatment** *If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!*

Field Decontamination? Yes / ~~NO~~ If Yes, with what? \_\_\_\_\_  
Waste Container ID 728342

Additional Comments Not Able to check water level due to diameter of well

Field Personnel	Nate Emmons <u>C. Scott Brown</u>	Alex Clarke Rich D'Amico	Signature <i>C. S. Brown</i>
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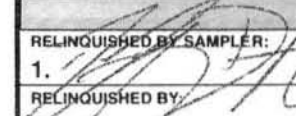
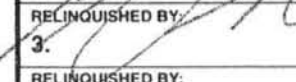
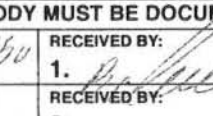
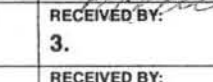
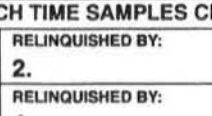
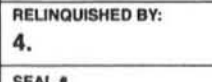
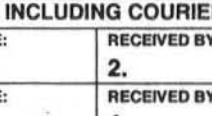
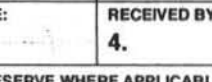
# CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE  
MARLBOROUGH, MA 01752  
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:

KBZ / 2009-453

ACCUTEST QUOTE #:

CLIENT INFORMATION		FACILITY INFORMATION				ANALYTICAL INFORMATION										MATRIX CODES		
<b>NAME</b> Loureiro Engineering Associates <b>ADDRESS</b> 100 Northwest Drive <b>CITY, STATE ZIP</b> Plainville CT 06062 <b>SEND REPORT TO:</b> <b>PHONE #</b> 860-410-3000		<b>PROJECT NAME</b> UTC PEW Willowpond Country Club <b>LOCATION</b> PEW East Hartford, CT <b>PROJECT NO.</b> 8807907.001 <b>FAX #</b>				<div style="display: flex; justify-content: space-between;"> <div> <b>10025 8260</b>  <b>27TH</b>  <b>22B3 8082</b>  <b>matrix RORAS + Cu, Ni, Zn</b> </div> <div> <b>DW - DRINKING WATER</b>  <b>GW - GROUND WATER</b>  <b>WW - WASTE WATER</b>  <b>SO - SOIL</b>  <b>SL - SLUDGE</b>  <b>OI - OIL</b>  <b>LIQ - OTHER LIQUID</b>  <b>SOL - OTHER SOLID</b> </div> </div>										<b>LAB USE ONLY</b>		
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION			MATRIX	# OF BOTTLES	PRESERVATION											
		DATE	TIME	SAMPLED BY:			HCl	NaOH	HNO3	H2SO4	NONE	OTHER						
1136013		12/8/09	1255	RSJ	GW	3	X							X				
1136013						4								X				
11360130F						1		X						X				
1136028						3	X						X					
1136028						4							X	X				
11360280F						1		X						X				
1136014			1520			2	X						X					
1136014						4							X	X				
11360140F						1		X						X				
<b>DATA TURNAROUND INFORMATION</b> <input checked="" type="checkbox"/> 14 DAYS STANDARD <input type="checkbox"/> 7 DAYS RUSH <input type="checkbox"/> 48 HOUR EMERGENCY <input type="checkbox"/> OTHER _____ 14 DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED		<b>DATA DELIVERABLE INFORMATION</b> <input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> COMMERCIAL "B" <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> STATE FORMS <input type="checkbox"/> OTHER (SPECIFY) _____				<b>COMMENTS/REMARKS</b> Provide Ct RCP Analytical lists for Vocs and PCB's and provide Ct RCP Report												
<b>SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY</b>																		
<b>RELINQUISHED BY SAMPLER:</b> 1.  <b>RELINQUISHED BY:</b> 3.  <b>RELINQUISHED BY:</b> 5.		<b>DATE TIME:</b> 17/8/09 1650 <b>DATE TIME:</b> <b>DATE TIME:</b>		<b>RECEIVED BY:</b> 1.  <b>RECEIVED BY:</b> 3.  <b>RECEIVED BY:</b> 5.		<b>RELINQUISHED BY:</b> 2.  <b>RELINQUISHED BY:</b> 4.  <b>SEAL #</b>		<b>DATE TIME:</b> <b>DATE TIME:</b> <b>DATE TIME:</b>		<b>RECEIVED BY:</b> 2.  <b>RECEIVED BY:</b> 4. 		<b>PRESERVE WHERE APPLICABLE</b> <input type="checkbox"/>			<b>ON ICE</b> <input type="checkbox"/>		<b>TEMPERATURE</b> _____ C	

CLIENT INFORMATION		FACILITY INFORMATION				ANALYTICAL INFORMATION												MATRIX CODES						
<b>NAME</b> Keweenaw Engineering Associates <b>ADDRESS</b> 100 North West Drive <b>CITY, STATE ZIP</b> Plainville CT 06062 <b>SEND REPORT TO:</b> 860-747-8422 <b>PHONE #</b> Robin McInerney (LEA)		<b>PROJECT NAME</b> Willow Brook/Pond Groundwater <b>LOCATION</b> P.O. East Hartford, CT <b>PROJECT NO.</b> 88UT9107 <b>FAX #</b> 860-747-8422				<div style="display: flex; justify-content: space-between;"> <div> <b>DATE</b> 12-8-09  <b>TIME</b> 1100  <b>SAMPLED BY:</b> AC           </div> <div> <b>MATRIX</b> GW  <b># OF BOTTLES</b> 2  <b>HCl</b> X  <b>NaOH</b>   <b>HNO3</b>   <b>H2SO4</b>   <b>NONE</b>   <b>ICE</b> X           </div> <div> <b>PRESERVATION</b>  <b>HCl</b>   <b>NaOH</b>   <b>HNO3</b>   <b>H2SO4</b>   <b>NONE</b>   <b>ICE</b> X           </div> </div>												<b>DW - DRINKING WATER</b> <b>GW - GROUND WATER</b> <b>WW - WASTE WATER</b> <b>SO - SOIL</b> <b>SL - SLUDGE</b> <b>OI - OIL</b> <b>LIQ - OTHER LIQUID</b> <b>SOL - OTHER SOLID</b>						
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	DATE	TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	HCl	NaOH	HNO3	H2SO4	NONE	ICE	LAB USE ONLY											
	1136011	12-8-09	1100	AC	GW	2	X					X	X											
	1136011		1100			4						X	X	X										
	1136011uf		1100			1			X			X		X										
	1136012		1310			2	X					X	X											
	1136012		1310			4						X	X	X										
	1136012uf		1310			1			X			X		X										
	1136010		1515			2	X					X	X											
	1136010		1515			4						X	X	X										
	1136010uf	12-8-09	1515	AC	GW	1			X			X		X										
<b>DATA TURNAROUND INFORMATION</b> <input checked="" type="checkbox"/> 14 DAYS STANDARD <input type="checkbox"/> 7 DAYS RUSH <input type="checkbox"/> 48 HOUR EMERGENCY <input type="checkbox"/> OTHER APPROVED BY: _____ 14 DAY TURNAROUND HARDCOPY, EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED		<b>DATA DELIVERABLE INFORMATION</b> <input type="checkbox"/> STANDARD <input type="checkbox"/> COMMERCIAL "B" <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> STATE FORMS <input type="checkbox"/> OTHER (SPECIFY) _____				<b>COMMENTS/REMARKS</b> Provide CT DEP analytical lists for VOCs: PCBs. Please provide DEP report.																		
<b>SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY</b>																								
RELINQUISHED BY SAMPLER:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:														
1.		12-8-09		1.		2.				2.														
RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:														
3.				3.		4.				4.														
RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		SEAL #		PRESERVE WHERE APPLICABLE		ON ICE		TEMPERATURE												
5.				5.								C												





## CHAIN OF CUSTODY

TEL: 508-481-6200 • FAX: 508-481-7753

KB2/2009-45

**ACCUTEST QUOTE #:**[illegible]

CLIENT INFORMATION			FACILITY INFORMATION				ANALYTICAL INFORMATION										MATRIX CODES
NAME: <u>LEA</u> ADDRESS: <u>100 Northwest Dr</u> CITY: <u>Plainville CT</u> STATE: <u>CT</u> ZIP: <u>06062</u> SEND REPORT TO: <u>Robin McKinney</u> PHONE #: <u>(860) 747-6181</u>			PROJECT NAME: <u>Willow Pond GW - Monitoring</u> LOCATION: <u>East Hartford</u> PROJECT NO.: <u>88UT907</u> FAX #: _____				<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);"> VOCs 8260 Metals RCRA 8 + CWA 21 PCBs 8082 CT ETPH </div> <div> </div> </div>										DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OI - OIL LIQ - OTHER LIQUID SOL - OTHER SOLID
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION			MATRIX	# OF BOTTLES	PRESERVATION							LAB USE ONLY			
		DATE	TIME	SAMPLED BY:			HCl	NaOH	HNO3	H2SO4	NONE	ICE					
	1136015	12/8/09	13:00	NE	GW	6	2					4	6	X	X	X	
	1136015 uf		13:00			1				1			1	X			
	1136016		15:05			6	2					4	6	X	X	X	
	1136016 uf		15:05			1				1			1	X			
	1136027		15:30			6	2					4	6	X	X	X	
	1136027 uf		15:30			1				1			1	X			
	1136026		10:00	Nn		1	1						1	X			
	1136017 uf	12/8/09	15:00	ESB	GW	1				1			1	X			
DATA TURNAROUND INFORMATION		DATA DELIVERABLE INFORMATION				COMMENTS/REMARKS											
<input checked="" type="checkbox"/> 14 DAYS STANDARD <input type="checkbox"/> 7 DAYS RUSH <input type="checkbox"/> 48 HOUR EMERGENCY <input type="checkbox"/> OTHER _____ 14 DAY TURNAROUND HARDCOPY, EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED		<input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> COMMERCIAL "B" <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> STATE FORMS <input type="checkbox"/> OTHER (SPECIFY) _____				Provide Ct RCP Analytical lists for VOCs and PCBs and provide Ct RCP report											
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY																	
RELINQUISHED BY SAMPLER:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:							
1. <u>Photo Forward</u>		12/8/09 16:15		1. <u>[Signature]</u> 16:50		2.				2.							
RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:							
3.				3.		4.				4.							
RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		SEAL #		PRESERVE WHERE APPLICABLE		ON ICE		TEMPERATURE _____ C					
5.				5.													





## DAILY FIELD REPORT

Loureiro Engineering Associates, Inc.

LEA Comm. No. 88UT907.001 Page 1 of 7  
Project UTC P&W Willowpond Quarterly GW Mon. Date 12/9/09  
Location P&W East Hartford, East Hartford, CT  
Client Pratt & Whitney Division - JTot

Arrived at Site 8:30 Departed from Site 1:10 Vehicle Personal  
Site Activities Odometer (Start)Re turn

- ☐ Soil Sampling  
☒ Groundwater Sampling  
☐ Surface Water Sampling  
☐ Vapor/Air Sampling  
☐ Concrete Sampling  
☐ Other Sampling  
☐ Other Sampling  
☐ Well Development

- ☐ Geoprobe Work  
☐ Concrete Coring  
☐ Construction  
☐ Waste Management  
☐ Inspection  
☐ Site Walk Over  
☐ Surveying  
☐ Other (Describe)

## Current Project Information

Last Sample Number Used 1756021  
Last Location ID Used WT-PW-S9  
Current Location (if not complete)  
Sampling for VOC's, PCB's, metals  
Laboratories used Accutest  
Paperwork & Equipment left at/in at office  
Site Contact Jeffery Thompson  
Contractors on Site LEA

## Non-productive Time

- ☒ None  
☐ Equipment Breakdown  
☐ Late

- ☐ Weather  
☐ Missing Equipment  
☐ Other (Describe)

Time and place to meet contractors 8:30 onsite

## Quality Assurance Checks

Yes N/A No

- | Yes                                 | N/A | No |                         |
|-------------------------------------|-----|----|-------------------------|
| <input checked="" type="checkbox"/> |     |    | Sample labels complete  |
| <input checked="" type="checkbox"/> |     |    | Sample/cooler seals OK  |
| <input checked="" type="checkbox"/> |     |    | All samples obtained    |
| <input checked="" type="checkbox"/> |     |    | Chains of custody       |
| <input checked="" type="checkbox"/> |     |    | All forms/logs complete |
| <input checked="" type="checkbox"/> |     |    | Site condition OK       |
| <input checked="" type="checkbox"/> |     |    | Site H&S Plan on site   |
| <input checked="" type="checkbox"/> |     |    | Instruments calibrated  |

## Residuals Disposition

Item	Approx. Amount	Container ID
Soil/Solid		
Groundwater	5 Gallons	728342
Decon Fluid		
PPE		
Other		

## Weather Conditions

Temperature 30's Precipitation sleet/Rain Wind  
Comments

## Checked By

Rob McInerney

## Expendable Items Used

Qty	Item	LEA Number	Qty	Item	LEA Number
	Bailer, Disposable (specify size)	090		Generator 3500 Watt	153
	Drum, Closed Top 55 Gallon	086		Meter, Conductivity	022
	Filter, In Line	024		Meter, pH/Temp	021
1	Miscellaneous Health & Safety Items	060	1	Miscellaneous Small Tools & Equipment	152
	Tubing, 1/2", NOS	007		Pump, Grundfos	073
	Tubing, 3/8", NOS	008	1	Pump, Peristaltic (spec. Master or Isco)	040
	Water, Distilled	025		Pump, Submersible	201
				Pump, Watera	038
			1	Turbidimeter	023
				VOC Analyzer, Photovac 2020 (PID)	012
			2	Water Level Indicator	028
			1	Water Quality Meter w/Flow Cell	070

## Field Personnel

Nate Emmons

C. Scott Brown

Alex Clarke

Rich D'Amico

Signature

Scott Brown



# DAILY FIELD REPORT

## Supplemental Sheet

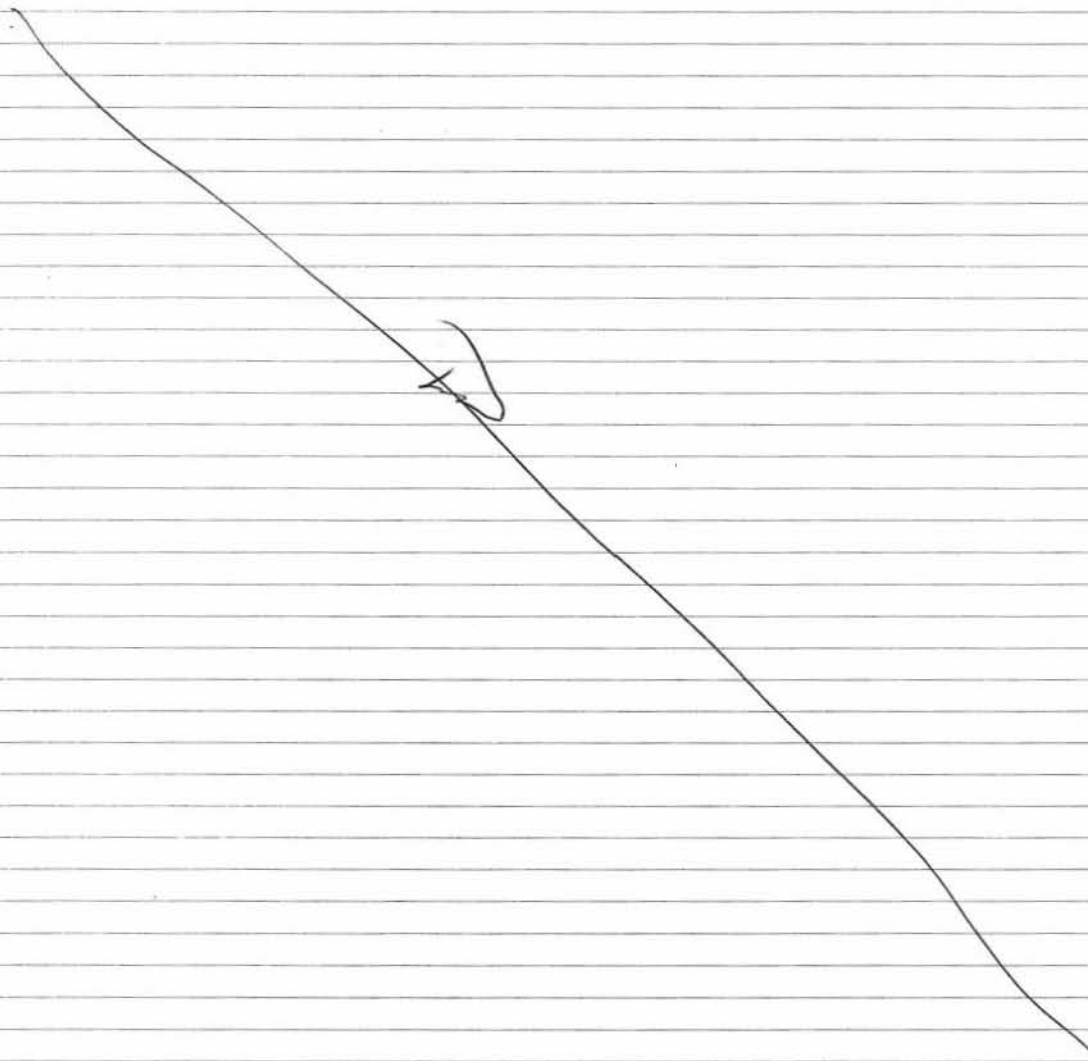
Loureiro Engineering Associates, Inc.

LEA Comm. No. 88UT907.001  
Project UTC P&W Willowpond Quarterly GW Mon.  
Location P&W East Hartford, East Hartford, CT  
Client Pratt & Whitney Division - JTot

Page 2 of 7  
Date 12/9/09

### Description of Site Activities

8:30 - on site  
• Calibrate Equipment  
8:50 - start Ground water sampling on remaining Ground water wells  
13:00 finish sampling  
13:10 - take care of waste  
13:10 - leave site



Field Personnel

Nate Emmons  
C. Scott Brown

Alex Clarke  
Rich D'Amico

Signature  
StB



Loureiro Engineering Associates, Inc.

## DAILY FIELD REPORT CALIBRATION RECORD

LEA Comm. No.	88UT907.001	Page <u>✓</u> of <u>2</u>					
Project	UTC P&W Willowpond Quarterly GW Mon.						Date <u>12/9/09</u>
Location	P&W East Hartford, East Hartford, CT						
Client	Pratt & Whitney Division - JTot						
pH Meter/Serial #	<u>0261124 AF</u>						
	Time	pH 4.01	pH 7.00	pH 10.01	Spec. Cond.	ORP	DO
Initial Calibration	<u>8:40</u>	<u>4.00</u>	<u>7.00</u>	<u>10.00</u>	<u>1006</u>	<u>99.6</u>	
Calibration Check							
Calibration Check							
Turbidity Meter/Serial #	<u>3521</u>						
	Time	0 NTU	20 NTU	100 NTU	800 NTU		
Initial Calibration	<u>8:35</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>		
Calibration Check							
Calibration Check							
PID Meter/Serial #							
	Time	Standard	Meter Reading	Zero with			
Initial Calibration							
Calibration Check							
Calibration Check							
Balance/Serial #							
	Time	Standard	Balance				
Initial Calibration							
Calibration Check							
Calibration Check							
Comments							
Field Personnel	<u>Nate Emmons</u> <u>C. Scott Brown</u>		<u>Alex Clarke</u> <u>Rich D'Amico</u>		Signature <u>Scott Brown</u>		

**FIELD SAMPLING RECORD**  
**LOW FLOW WELL SAMPLE**

LEA Comm. No.	88UT907.001
Project	UTC P&W Willowpond Quarterly GW Mon.
Location	P&W East Hartford, East Hartford, CT
Client	Pratt & Whitney Division - JTot

Page 4 of 7  
Date 12/9/09  
Sample Time 9:30

Monitoring Well Number WT- MW-46 Sample Number(s) 1136019 1136019uf

### Initial Field Data and Measurements

Depth of Well 12.64 Reference Used TOC  
 Depth to Water 7.06 PID/FID Reading 0.0  
 Height of Column 5.54 Interface Yes / No If yes, Depth \_\_\_\_\_ Lighter / Heavier \_\_\_\_\_  
 Well Casing Diameter 0.5" Material PVC General Condition OK \_\_\_\_\_ Bad \_\_\_\_\_  
 Protector Road Box / Stickup Casing Secure ☒ \_\_\_\_\_  
 Ground to Reference TOC Collar Intact ☒ \_\_\_\_\_  
 Comments \_\_\_\_\_ Cover Locked ☒ \_\_\_\_\_  
 Other (describe) \_\_\_\_\_

### Development Information

Development Information											
Parameter Time	Depth to Water	Pump Setting	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	Comment
8:50	-	300	100			start					
9:00	-	300	100	1.0L	9.64	408	7.45	44.5	13.4	7.35	
9:10	-	300	100	2.0L	9.70	412	7.50	49.9	11.6	5.73	
9:20	-	300	100	3.0L	9.72	418	7.51	52.6	10.3	4.02	
9:23	-	300	100	3.3L	9.71	420	7.50	53.1	9.6	4.60	
9:26	-	300	100	3.6L	9.68	421	7.49	54.6	9.1	4.06	
9:30	-	300	100	4.0L	9.65	422	7.49	55.6	8.6	3.62	sampled

Development Method ☒ Peristaltic Pump ☐ Bailer ☐ Inertial Pump ☐ Other

**Sample Field Treatment** *If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!*

Field Decontamination? Yes / No If Yes, with what? \_\_\_\_\_  
Waste Container ID 228342

### Additional Comments

Field Personnel	Nate Emmons C. Scott Brown	Alex Clarke Rich D'Amico	Signature <i>Scott Brown</i>
-----------------	-------------------------------	-----------------------------	---------------------------------

**FIELD SAMPLING RECORD**  
**LOW FLOW WELL SAMPLE**

Loureiro Engineering Associates, Inc.

LEA Comm. No. 88UT907.001

Page 5 of 7

Project UTC P&amp;W Willowpond Quarterly GW Mon.

Date 12/01/09

Location	P&W East Hartford, East Hartford, CT
----------	--------------------------------------

Sample Time 11 : 20

Client	Pratt & Whitney Division - JTot
--------	---------------------------------

Monitoring Well Number WT-MW-58

Sample Number(s) 1136020

1136020vf

### Initial Field Data and Measurements

Depth of Well 17.60

Reference Used JWC

Depth to Water	14.41
----------------	-------

PID/FID Reading 0.0

Height of Column 3.19

Interface Yes ☒ (No) If yes, Depth Lighter / Heavier

Well Casing Diameter 1.5"

Material *PVC*

General Condition      OK      Bad

Protector	<u>Road Box</u> / Stickup
-----------	---------------------------

Ground to Reference *TOL*

## Comments

Casing Secure

Casing Secure

Collar Intact

Cover Locked

Other (describe) \_\_\_\_\_

### Development Information

[illegible]

Development Method Peristaltic Pump / Bailer / Inertial Pump / Other

**Sample Field Treatment** *If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!*

Field Decontamination? Yes / No If Yes, with what?

Waste Container ID 28342

### Additional Comments

## Field Personnel

Nate Emmons

C. Scott Brown

Alex Clarke

Rich D'Amico

*Signature*

Scot Bru

**FIELD SAMPLING RECORD**  
**LOW FLOW WELL SAMPLE**

LEA Comm. No.	88UT907.001
Project	UTC P&W Willowpond Quarterly GW Mon.
Location	P&W East Hartford, East Hartford, CT
Client	Pratt & Whitney Division - JTot

Page 6 of 7  
Date 12/9/09  
Sample Time 12:40

Monitoring Well Number WT-MW-59 Sample Number(s) 1136021 1136021 vf

### Initial Field Data and Measurements

Depth of Well	17.60	Reference Used	TOL	
Depth to Water	12.95	PID/FID Reading	0.0	
Height of Column	4.65	Interface	Yes / <del>No</del>	If yes, Depth _____ Lighter / Heavier
Well Casing Diameter	1.5"	Material	PVC	General Condition
Protector	Road Box / Stickup			OK Bad
Ground to Reference	TOL			Casing Secure
Comments				Collar Intact
				Cover Locked
				Other (describe)

### Development Information

Parameter	Depth to Water	Pump Setting	Purge Rate (mL/min)	Cum. Liters Purged (L)	Temp (C)	Spec. Cond. (uS/cm)	pH (SU)	ORP (Eh)	DO (mg/L)	Turbidity (NTU)	Comment
11:40	13:00	300	100								
11:50	12.97	300	100	1.0L	13.76	4096	6.94	28.9	3.36	19.2	
12:00	12.97	300	100	2.0L	13.80	3623	6.97	21.3	2.12	14.6	
12:10	12.97	300	100	3.0L	13.82	3378	6.96	17.6	1.93	8.34	
12:20	12.97	300	100	4.0L	13.81	3166	6.97	14.1	1.68	6.08	
12:30	12.97	300	100	5.0L	13.81	2912	6.98	11.7	1.40	4.90	
12:33	12.97	300	100	5.3L	13.80	2810	7.01	9.3	1.12	4.73	
12:36	12.97	300	100	5.6L	13.78	2755	6.97	8.6	1.01	4.12	
12:40	12.97	300	100	6.0L	13.81	2693	6.99	7.0	.89	4.03	Sample

Development Method Peristaltic Pump / Bailer / Inertial Pump / Other

**Sample Field Treatment** *If any ambiguity could exist, be sure to indicate the field treatment applied to each sample aliquot with the appropriate suffix in the sample ID on both the sample bottle label and on the Chain of Custody!*

Field Decontamination? Yes / No If Yes, with what? \_\_\_\_\_  
Waste Container ID 228342

### Additional Comments

Field Personnel	Nate Emmons C. Scott Brown	Alex Clarke Rich D'Amico	Signature <i>[Signature]</i>
-----------------	-------------------------------	-----------------------------	---------------------------------





LEA Comm. No.	88UT907.001
Project	UTC P&W Willowpond Quarterly GW Mon.
Location	P&W East Hartford, East Hartford, CT
Client	Pratt & Whitney Division - JTot

Page 7 of 7  
Date 12/9/09

Sample ID	Location ID	Time	Sample Type	Depth (ft)	PID/FID Reading	Comments	Waste Cont. ID
1136025	Trip Blank	9:00	BKT	-	-	Trip Blank	
<div> <div>Field Personnel</div> <div> <div>Nate Emmons</div> <div>C. Scott Brown</div> </div> </div> <div> <div>Alex Clarke</div> <div>Rich D'Amico</div> </div> <div> <div>Signature</div> <div>SAK</div> </div>							



Loureiro Engineering Associates, Inc.

## FIELD SAMPLING RECORD LOW FLOW WELL SAMPLE

LEA Comm. No.	88UT907.001	Page ____ of ____
Project	UTC P&W Willowpond Quarterly GW Mon.	Date ____/____/____
Location	P&W East Hartford, East Hartford, CT	Sample Time ____:____
Client	Pratt & Whitney Division - JTot	



USA 800-372-0122  
EUROPE 44 (0) 161 946 2777

**Loureiro Engineering**  
Custom Volatiles  
Preserved w/ HCl  
Sample ID # 0908-09-02A

1136024



USA 800-372-0122  
EUROPE 44 (0) 161 946 2777

**Loureiro Engineering**  
Custom Volatiles  
Preserved w/ HCl  
Sample ID # 0908-09-02A

1136024

Field Personnel	Nate Emmons	Alex Clarke	Signature
	C. Scott Brown	Rich D'Amico	

CLIENT INFORMATION				FACILITY INFORMATION				ANALYTICAL INFORMATION												MATRIX CODES	
<b>NAME</b> LEA <b>ADDRESS</b> 10 North West Drive <b>CITY, STATE, ZIP</b> Plainville CT 06062 <b>SEND REPORT TO:</b> Robin McKinney <b>PHONE #</b> 860-410-3000				<b>PROJECT NAME</b> UTC PqW Willowpond Quarterly Gw Mon <b>LOCATION</b> PqW East Hartford, East Hartford CT <b>PROJECT NO.</b> 88UT907-001 <b>FAX #</b>				VOCs 8260B CT ETPH PCBs 4082 REARX metals, Cu, Ni, Zn												DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OI - OIL LIQ - OTHER LIQUID SOL - OTHER SOLID	
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION			MATRIX	# OF BOTTLES	PRESERVATION							LAB USE ONLY							
		DATE	TIME	SAMPLED BY:			HCl	NaOH	HNO3	H2SO4	NONE	CT									
	1136019	12/9/09	9:30	CSB	6W	2															
	1136019	12/9/09	9:30	CSB	6W	4															
	1136019 UF	12/9/09	9:30	CSA	6W	1															
	1136020	12/9/09	11:20	CSB	6W	2															
	1136020	12/9/09	11:20	CSB	6W	4															
	1136020 UF	12/9/09	11:20	CSB	6W	1															
	1136021	12/9/09	12:40	CSB	6W	2															
	1136021	12/9/09	12:40	CSB	6W	4															
	1136021 UF	12/9/09	12:40	CSB	6W	1															
	1136025	12/9/09	9:00	CSB	1.0	1															
	1136024	12/9/09	13:45	CSB	1.0	2															
DATA TURNAROUND INFORMATION				DATA DELIVERABLE INFORMATION				COMMENTS/REMARKS													
<input checked="" type="checkbox"/> 14 DAYS STANDARD <input type="checkbox"/> 7 DAYS RUSH <input type="checkbox"/> 48 HOUR EMERGENCY <input type="checkbox"/> OTHER 14 DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED				<input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> COMMERCIAL "B" <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> STATE FORMS <input type="checkbox"/> OTHER (SPECIFY)				Provide CT RCP analytical lists for Vocs and PCBs and Provide CT RCP Report													
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY																					
RELINQUISHED BY SAMPLER:		DATE TIME: 12/9/09 14:00		RECEIVED BY: 1. L. B. F. [Signature]		RELINQUISHED BY: 2. [Signature]		DATE TIME: 12-10-09		RECEIVED BY: 2. [Signature]											
RELINQUISHED BY: 3.		DATE TIME:		RECEIVED BY: 3.		RELINQUISHED BY: 4.		DATE TIME:		RECEIVED BY: 4.											
RELINQUISHED BY: 5.		DATE TIME:		RECEIVED BY: 5.		SEAL #		PRESERVE WHERE APPLICABLE		ON ICE		TEMPERATURE _____ C									

## **Appendix B**

### **Copies of Laboratory Reports (provided on CD-ROM)**





01/19/10

IT'S ALL IN THE CHEMISTRY

01/19/10

## Technical Report for

Loureiro Eng. Associates

UTC: 2009 Quarterly GW-Willow Pond

88UT907

Accutest Job Number: M81183

Sampling Date: 03/10/09

Report to:

Loureiro Eng. Associates

hmgrimm@loureiro.com

ATTN: Heather Grimm

Total number of pages in report: **153**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Reza Fand  
Lab Director

Client Service contact: Kristen Blanchard 508-481-6200

Certifications: MA (M-MA136) CT (PH-0109) NH (2502) RI (00071) ME (MA0136) FL (E87579)  
NY (11791) NJ (MA926) NC (653) IL (200018) NAVY USACE

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

# Table of Contents

-1-

<b>Section 1: Sample Summary .....</b>	<b>4</b>
<b>Section 2: Case Narrative/Conformance Summary .....</b>	<b>6</b>
<b>Section 3: Sample Results .....</b>	<b>9</b>
<b>3.1:</b> M81183-1: 1117643 .....	10
<b>3.2:</b> M81183-2: 1117643UF .....	15
<b>3.3:</b> M81183-3: 1117644 .....	16
<b>3.4:</b> M81183-4: 1117644UF .....	21
<b>3.5:</b> M81183-5: 1117645 .....	22
<b>3.6:</b> M81183-6: 1117645UF .....	27
<b>3.7:</b> M81183-7: 1117649 .....	28
<b>3.8:</b> M81183-8: 1117649UF .....	33
<b>3.9:</b> M81183-9: 1117650 .....	34
<b>3.10:</b> M81183-10: 1117650UF .....	39
<b>3.11:</b> M81183-11: 1117651 .....	40
<b>3.12:</b> M81183-12: 1117651UF .....	45
<b>3.13:</b> M81183-13: 1117663 .....	46
<b>3.14:</b> M81183-14: 1117663UF .....	51
<b>3.15:</b> M81183-15: 1117662 .....	52
<b>3.16:</b> M81183-16: 1117646 .....	55
<b>3.17:</b> M81183-17: 1117646UF .....	60
<b>3.18:</b> M81183-18: 1117647 .....	61
<b>3.19:</b> M81183-19: 1117647UF .....	66
<b>3.20:</b> M81183-20: 1117648 .....	67
<b>3.21:</b> M81183-21: 1117648UF .....	72
<b>Section 4: Misc. Forms .....</b>	<b>73</b>
<b>4.1:</b> Certification Exceptions .....	74
<b>4.2:</b> Chain of Custody .....	75
<b>4.3:</b> RCP Form .....	79
<b>4.4:</b> Sample Tracking Chronicle .....	80
<b>Section 5: GC/MS Volatiles - QC Data Summaries .....</b>	<b>84</b>
<b>5.1:</b> Method Blank Summary .....	85
<b>5.2:</b> Blank Spike/Blank Spike Duplicate Summary .....	100
<b>5.3:</b> Matrix Spike/Matrix Spike Duplicate Summary .....	115
<b>5.4:</b> Internal Standard Area Summaries .....	130
<b>5.5:</b> Surrogate Recovery Summaries .....	135
<b>Section 6: GC Semi-volatiles - QC Data Summaries .....</b>	<b>137</b>
<b>6.1:</b> Method Blank Summary .....	138
<b>6.2:</b> Blank Spike Summary .....	140
<b>6.3:</b> Matrix Spike/Matrix Spike Duplicate Summary .....	142
<b>6.4:</b> Surrogate Recovery Summaries .....	144
<b>Section 7: Metals Analysis - QC Data Summaries .....</b>	<b>146</b>
<b>7.1:</b> Prep QC MP13188: As,Ba,Cd,Cr,Cu,Pb,Ni,Se,Ag,Zn .....	147



# Table of Contents

Sections:

- 1
- 2
- 3
- 4
- 5
- 6
- 7

-2-

7.2: Prep QC MP13200: Hg ..... 151



## Sample Summary

Loureiro Eng. Associates

Job No: M81183

UTC: 2009 Quarterly GW-Willow Pond

Project No: 88UT907

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
M81183-1	03/10/09	14:45 CSB	03/10/09	AQ	Ground Water	1117643
M81183-2	03/10/09	14:45 CSB	03/10/09	AQ	Ground Water	1117643UF
M81183-3	03/10/09	12:45 CSB	03/10/09	AQ	Ground Water	1117644
M81183-4	03/10/09	12:45 CSB	03/10/09	AQ	Ground Water	1117644UF
M81183-5	03/10/09	10:15 CSB	03/10/09	AQ	Ground Water	1117645
M81183-6	03/10/09	10:15 CSB	03/10/09	AQ	Ground Water	1117645UF
M81183-7	03/10/09	10:35 LC	03/10/09	AQ	Ground Water	1117649
M81183-8	03/10/09	10:35 LC	03/10/09	AQ	Ground Water	1117649UF
M81183-9	03/10/09	12:35 LC	03/10/09	AQ	Ground Water	1117650
M81183-10	03/10/09	12:35 LC	03/10/09	AQ	Ground Water	1117650UF
M81183-11	03/10/09	14:00 LC	03/10/09	AQ	Ground Water	1117651
M81183-12	03/10/09	14:00 LC	03/10/09	AQ	Ground Water	1117651UF
M81183-13	03/10/09	12:00 LC	03/10/09	AQ	Ground Water	1117663



Sample Summary  
(continued)

Loureiro Eng. Associates

Job No: M81183

UTC: 2009 Quarterly GW-Willow Pond  
Project No: 88UT907

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
M81183-14	03/10/09	12:00 LC	03/10/09	AQ	Ground Water	1117663UF
M81183-15	03/10/09	12:00 LC	03/10/09	AQ	Ground Water	1117662
M81183-16	03/10/09	10:45 NE	03/10/09	AQ	Ground Water	1117646
M81183-17	03/10/09	10:45 NE	03/10/09	AQ	Ground Water	1117646UF
M81183-18	03/10/09	12:55 NE	03/10/09	AQ	Ground Water	1117647
M81183-19	03/10/09	12:55 NE	03/10/09	AQ	Ground Water	1117647UF
M81183-20	03/10/09	14:25 NE	03/10/09	AQ	Ground Water	1117648
M81183-21	03/10/09	14:25 NE	03/10/09	AQ	Ground Water	1117648UF

## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Loureiro Eng. Associates

**Job No** M81183

**Site:** UTC: 2009 Quarterly GW-Willow Pond

**Report Date** 3/23/2009 3:27:53 PM

21 Sample(s) were collected on 03/10/2009 and were received at Accutest on 03/10/2009 properly preserved, at 0.9 Deg. C and intact. These Samples received an Accutest job number of M81183. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### Volatiles by GCMS By Method SW846 8260B

**Matrix** AQ

**Batch ID:** MSG3590

- All samples were analyzed within the recommended method holding time.
- Sample(s) M81205-7MS, M81205-7MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- MS/MSD has compounds exceed RCP control limits (70-130%), but within in-house control limits. Refer to MS/MSD spike summary pages for detail.
- Initial calibration standard (batch MSG3531) for chloromethane, bromomethane, 1,1-dichloroethene, acetone, trans-1,2-dichloroethene, cis-1,2-dichloroethene, trans-1,4-dichloro-2-butene, naphthalene is employed quadratic regression.

**Matrix** AQ

**Batch ID:** MSN1225

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M81180-15MS, M81180-15MSD were used as the QC samples indicated.
- Matrix Spike Recovery(s) for 4-Methyl-2-pentanone (MIBK) are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Initial calibration standards in batch MSN1202 for acetone, 2-butanone, 2,2-dichloropropane is employed quadratic regression.
- MS/MSD has compounds exceed RCP control limits (70-130%), but within in-house control limits. Refer to MS/MSD spike summary pages for detail.

**Matrix** AQ

**Batch ID:** MSN1226

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M81180-14MS, M81180-14MSD were used as the QC samples indicated.
- Matrix Spike Recovery(s) for o-Chlorotoluene, p-Chlorotoluene are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for o-Chlorotoluene is outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Recovery(s) for 1,2,4-Trimethylbenzene, m,p-Xylene, o-Xylene, Toluene are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- MS/MSD has compounds exceed RCP control limits (70-130%), but within in-house control limits. Refer to MS/MSD spike summary pages for detail.
- Matrix Spike Duplicate Recovery(s) for Benzene, Ethylbenzene, Toluene, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, m,p-Xylene, o-Xylene are outside control limits. Outside control limits due to high level in sample relative to spike amount.

**Matrix** AQ

**Batch ID:** MSN1227

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Monday, March 23, 2009

Page 1 of 3

## Volatiles by GCMS By Method SW846 8260B

**Matrix** AQ

**Batch ID:** MSN1227

- Matrix Spike Recovery(s) for Vinyl chloride are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- MS/MSD has compounds exceed RCP control limits (70-130%), but within in-house control limits. Refer to MS/MSD spike summary pages for detail.

**Matrix** AQ

**Batch ID:** MSN1228

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- MS/MSD has compounds exceed RCP control limits (70-130%), but within in-house control limits. Refer to MS/MSD spike summary pages for detail.
- MS recovery for acetone is outside control limits due to possible matrix interference.
- Continuing calibration check standard for acetone, Dichlorodifluoromethane exceed 30% Difference. This check standard met RCP criteria.
- BS recovery for Freon 113 exceed RCP control limits (70-130%), but within in-house control limits. This is a "Problem Compound".

## Extractables by GC By Method CT-ETPH

**Matrix** AQ

**Batch ID:** OP18047

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) M81179-6MS, M81179-6MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

## Extractables by GC By Method SW846 8082

**Matrix** AQ

**Batch ID:** OP18048

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) OP18048-MS/MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

## Metals By Method SW846 6010B

**Matrix** AQ

**Batch ID:** MP13188

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M81183-2DUP, M81183-2MS, M81183-2SDL were used as the QC samples for metals.
- RPD(s) for Duplicate for Cadmium, Copper, Lead are outside control limits for sample MP13188-D1. RPD acceptable due to low duplicate and sample concentrations.
- RPD(s) for Serial Dilution for Copper, Nickel, Barium are outside control limits for sample MP13188-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- MP13188-SD1 for Barium: Serial Dilution RPD acceptable due to low duplicate and sample concentrations.
- Only selected metals requested.

## Metals By Method SW846 7470A

**Matrix** AQ

**Batch ID:** MP13200

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M81183-4DUP, M81183-4MS were used as the QC samples for metals.

Note: Compounds whose reported QC limits are outside the CT Recommended Reasonable Confidence Protocol QC criteria are designated by the lab as "Problem Compounds". QC criteria for a "Problem Compound" may meet Accutest in-house generated QC criteria but exceed the RCP criteria (compounds exceeding Accutest QC criteria are flagged on the QC summary). Refer to the QC summary pages.

Unless otherwise noted, sample dilutions are performed in order to report the result within the calibration range.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety. The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report (M81183).





## Sample Results

## Report of Analysis

## Report of Analysis

<b>Client Sample ID:</b>	1117643	<b>Date Sampled:</b>	03/10/09
<b>Lab Sample ID:</b>	M81183-1	<b>Date Received:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N33153.D	1	03/17/09	RT	n/a	n/a	MSN1225
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117643	<b>Date Sampled:</b>	03/10/09
<b>Lab Sample ID:</b>	M81183-1	<b>Date Received:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		79-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117643	<b>Date Sampled:</b>	03/10/09
<b>Lab Sample ID:</b>	M81183-1	<b>Date Received:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	106%		80-120%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1117643  
**Lab Sample ID:** M81183-1  
**Matrix:** AQ - Ground Water  
**Method:** CT-ETPH SW846 3510C  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Date Sampled:** 03/10/09  
**Date Received:** 03/10/09  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC25814A.D	1	03/17/09	DG	03/11/09	OP18047	GBC1422
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	ND	0.089	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
3386-33-2	1-Chlorooctadecane	90%		50-149%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117643		
<b>Lab Sample ID:</b>	M81183-1	<b>Date Sampled:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	03/10/09
<b>Method:</b>	SW846 8082 SW846 3510C	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BE15062.D	1	03/13/09	SL	03/11/09	OP18048	GBE1057
Run #2							

	Initial Volume	Final Volume
Run #1	930 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.27	ug/l	
11104-28-2	Aroclor 1221	ND	0.27	ug/l	
11141-16-5	Aroclor 1232	ND	0.27	ug/l	
53469-21-9	Aroclor 1242	ND	0.27	ug/l	
12672-29-6	Aroclor 1248	ND	0.27	ug/l	
11097-69-1	Aroclor 1254	ND	0.27	ug/l	
11096-82-5	Aroclor 1260	ND	0.27	ug/l	
37324-23-5	Aroclor 1262	ND	0.27	ug/l	
11100-14-4	Aroclor 1268	ND	0.27	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	110%		32-149%
877-09-8	Tetrachloro-m-xylene	120%		32-149%
2051-24-3	Decachlorobiphenyl	126%		30-150%
2051-24-3	Decachlorobiphenyl	124%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

**Client Sample ID:** 1117643UF**Lab Sample ID:** M81183-2**Matrix:** AQ - Ground Water**Date Sampled:** 03/10/09**Date Received:** 03/10/09**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond**Total Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Barium	< 200	200	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 4.0	4.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Copper	< 25	25	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	03/13/09	03/13/09 MA	SW846 7470A <sup>2</sup>	SW846 7470A <sup>4</sup>
Nickel	< 40	40	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Zinc	25.8	20	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA10242

(2) Instrument QC Batch: MA10245

(3) Prep QC Batch: MP13188

(4) Prep QC Batch: MP13200

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1117644	<b>Date Sampled:</b>	03/10/09
<b>Lab Sample ID:</b>	M81183-3	<b>Date Received:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N33154.D	1	03/17/09	RT	n/a	n/a	MSN1225
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117644	<b>Date Sampled:</b>	03/10/09
<b>Lab Sample ID:</b>	M81183-3	<b>Date Received:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		79-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117644	<b>Date Sampled:</b>	03/10/09
<b>Lab Sample ID:</b>	M81183-3	<b>Date Received:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	106%		80-120%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1117644  
**Lab Sample ID:** M81183-3  
**Matrix:** AQ - Ground Water  
**Method:** CT-ETPH SW846 3510C  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Date Sampled:** 03/10/09  
**Date Received:** 03/10/09  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC25815A.D	1	03/17/09	DG	03/11/09	OP18047	GBC1422
Run #2							

	Initial Volume	Final Volume
Run #1	910 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	ND	0.088	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	83%		50-149%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117644		
<b>Lab Sample ID:</b>	M81183-3	<b>Date Sampled:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	03/10/09
<b>Method:</b>	SW846 8082 SW846 3510C	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BE15063.D	1	03/13/09	SL	03/11/09	OP18048	GBE1057
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.28	ug/l	
11104-28-2	Aroclor 1221	ND	0.28	ug/l	
11141-16-5	Aroclor 1232	ND	0.28	ug/l	
53469-21-9	Aroclor 1242	ND	0.28	ug/l	
12672-29-6	Aroclor 1248	ND	0.28	ug/l	
11097-69-1	Aroclor 1254	ND	0.28	ug/l	
11096-82-5	Aroclor 1260	ND	0.28	ug/l	
37324-23-5	Aroclor 1262	ND	0.28	ug/l	
11100-14-4	Aroclor 1268	ND	0.28	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	103%		32-149%
877-09-8	Tetrachloro-m-xylene	107%		32-149%
2051-24-3	Decachlorobiphenyl	116%		30-150%
2051-24-3	Decachlorobiphenyl	107%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 1117644UF

Lab Sample ID: M81183-4

Matrix: AQ - Ground Water

Date Sampled: 03/10/09

Date Received: 03/10/09

Percent Solids: n/a

Project: UTC: 2009 Quarterly GW-Willow Pond

## Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Barium	< 200	200	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 4.0	4.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Copper	< 25	25	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	03/13/09	03/13/09 MA	SW846 7470A <sup>2</sup>	SW846 7470A <sup>4</sup>
Nickel	< 40	40	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA10242

(2) Instrument QC Batch: MA10245

(3) Prep QC Batch: MP13188

(4) Prep QC Batch: MP13200

RL = Reporting Limit



## Report of Analysis

<b>Client Sample ID:</b>	1117645	<b>Date Sampled:</b>	03/10/09
<b>Lab Sample ID:</b>	M81183-5	<b>Date Received:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N33206.D	1	03/19/09	RT	n/a	n/a	MSN1227
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117645	<b>Date Sampled:</b>	03/10/09
<b>Lab Sample ID:</b>	M81183-5	<b>Date Received:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		79-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117645	<b>Date Sampled:</b>	03/10/09
<b>Lab Sample ID:</b>	M81183-5	<b>Date Received:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	104%		80-120%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1117645**Lab Sample ID:** M81183-5**Date Sampled:** 03/10/09**Matrix:** AQ - Ground Water**Date Received:** 03/10/09**Method:** CT-ETPH SW846 3510C**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC25816A.D	1	03/17/09	DG	03/11/09	OP18047	GBC1422
Run #2							

	Initial Volume	Final Volume
Run #1	890 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
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	CT-DRO (C9-C36)	ND	0.090	mg/l	
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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
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3386-33-2	1-Chlorooctadecane	87%		50-149%
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ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 1117645

Lab Sample ID: M81183-5

Date Sampled: 03/10/09

Matrix: AQ - Ground Water

Date Received: 03/10/09

Method: SW846 8082 SW846 3510C

Percent Solids: n/a

Project: UTC: 2009 Quarterly GW-Willow Pond

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BE15064.D	1	03/13/09	SL	03/11/09	OP18048	GBE1057
Run #2							

	Initial Volume	Final Volume
Run #1	930 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.27	ug/l	
11104-28-2	Aroclor 1221	ND	0.27	ug/l	
11141-16-5	Aroclor 1232	ND	0.27	ug/l	
53469-21-9	Aroclor 1242	ND	0.27	ug/l	
12672-29-6	Aroclor 1248	ND	0.27	ug/l	
11097-69-1	Aroclor 1254	ND	0.27	ug/l	
11096-82-5	Aroclor 1260	ND	0.27	ug/l	
37324-23-5	Aroclor 1262	ND	0.27	ug/l	
11100-14-4	Aroclor 1268	ND	0.27	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	107%		32-149%
877-09-8	Tetrachloro-m-xylene	117%		32-149%
2051-24-3	Decachlorobiphenyl	122%		30-150%
2051-24-3	Decachlorobiphenyl	117%		30-150%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 1117645UF

Lab Sample ID: M81183-6

Matrix: AQ - Ground Water

Date Sampled: 03/10/09

Date Received: 03/10/09

Percent Solids: n/a

Project: UTC: 2009 Quarterly GW-Willow Pond

## Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Barium	< 200	200	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 4.0	4.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Copper	< 25	25	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	03/13/09	03/13/09 MA	SW846 7470A <sup>2</sup>	SW846 7470A <sup>4</sup>
Nickel	< 40	40	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Zinc	20.3	20	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA10242

(2) Instrument QC Batch: MA10245

(3) Prep QC Batch: MP13188

(4) Prep QC Batch: MP13200

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1117649	<b>Date Sampled:</b>	03/10/09
<b>Lab Sample ID:</b>	M81183-7	<b>Date Received:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N33207.D	1	03/19/09	RT	n/a	n/a	MSN1227
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	1117649	<b>Date Sampled:</b>	03/10/09
<b>Lab Sample ID:</b>	M81183-7	<b>Date Received:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	2.3	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		79-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117649	<b>Date Sampled:</b>	03/10/09
<b>Lab Sample ID:</b>	M81183-7	<b>Date Received:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	106%		80-120%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117649						
<b>Lab Sample ID:</b>	M81183-7					<b>Date Sampled:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water					<b>Date Received:</b>	03/10/09
<b>Method:</b>	CT-ETPH SW846 3510C					<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC25817A.D	1	03/17/09	DG	03/11/09	OP18047	GBC1422
Run #2							

	Initial Volume	Final Volume
Run #1	940 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	0.226	0.085	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
3386-33-2	1-Chlorooctadecane	78%		50-149%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1117649  
**Lab Sample ID:** M81183-7  
**Matrix:** AQ - Ground Water  
**Method:** SW846 8082 SW846 3510C  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Date Sampled:** 03/10/09  
**Date Received:** 03/10/09  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BE15065.D	1	03/13/09	SL	03/11/09	OP18048	GBE1057
Run #2							

	Initial Volume	Final Volume
Run #1	940 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.27	ug/l	
11104-28-2	Aroclor 1221	ND	0.27	ug/l	
11141-16-5	Aroclor 1232	ND	0.27	ug/l	
53469-21-9	Aroclor 1242	ND	0.27	ug/l	
12672-29-6	Aroclor 1248	ND	0.27	ug/l	
11097-69-1	Aroclor 1254	ND	0.27	ug/l	
11096-82-5	Aroclor 1260	ND	0.27	ug/l	
37324-23-5	Aroclor 1262	ND	0.27	ug/l	
11100-14-4	Aroclor 1268	ND	0.27	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	106%		32-149%
877-09-8	Tetrachloro-m-xylene	115%		32-149%
2051-24-3	Decachlorobiphenyl	110%		30-150%
2051-24-3	Decachlorobiphenyl	85%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 1117649UF

Lab Sample ID: M81183-8

Matrix: AQ - Ground Water

Date Sampled: 03/10/09

Date Received: 03/10/09

Percent Solids: n/a

Project: UTC: 2009 Quarterly GW-Willow Pond

## Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	4.7	4.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Barium	< 200	200	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 4.0	4.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Chromium	10.7	10	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Copper	< 25	25	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	03/13/09	03/13/09 MA	SW846 7470A <sup>2</sup>	SW846 7470A <sup>4</sup>
Nickel	< 40	40	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA10242

(2) Instrument QC Batch: MA10245

(3) Prep QC Batch: MP13188

(4) Prep QC Batch: MP13200

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1117650		
<b>Lab Sample ID:</b>	M81183-9	<b>Date Sampled:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	03/10/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N33208.D	1	03/19/09	RT	n/a	n/a	MSN1227
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117650	<b>Date Sampled:</b>	03/10/09
<b>Lab Sample ID:</b>	M81183-9	<b>Date Received:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	1.1	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		79-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	1117650	<b>Date Sampled:</b>	03/10/09
<b>Lab Sample ID:</b>	M81183-9	<b>Date Received:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	106%		80-120%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1117650  
**Lab Sample ID:** M81183-9  
**Matrix:** AQ - Ground Water  
**Method:** CT-ETPH SW846 3510C  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Date Sampled:** 03/10/09  
**Date Received:** 03/10/09  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC25818A.D	1	03/17/09	DG	03/11/09	OP18047	GBC1422
Run #2							

	Initial Volume	Final Volume
Run #1	930 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	0.824	0.086	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	79%		50-149%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1117650  
**Lab Sample ID:** M81183-9  
**Matrix:** AQ - Ground Water  
**Method:** SW846 8082 SW846 3510C  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Date Sampled:** 03/10/09  
**Date Received:** 03/10/09  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BE15067.D	1	03/13/09	SL	03/11/09	OP18048	GBE1057
Run #2							

	Initial Volume	Final Volume
Run #1	930 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.27	ug/l	
11104-28-2	Aroclor 1221	ND	0.27	ug/l	
11141-16-5	Aroclor 1232	ND	0.27	ug/l	
53469-21-9	Aroclor 1242	ND	0.27	ug/l	
12672-29-6	Aroclor 1248	ND	0.27	ug/l	
11097-69-1	Aroclor 1254	ND	0.27	ug/l	
11096-82-5	Aroclor 1260	ND	0.27	ug/l	
37324-23-5	Aroclor 1262	ND	0.27	ug/l	
11100-14-4	Aroclor 1268	ND	0.27	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	101%		32-149%
877-09-8	Tetrachloro-m-xylene	111%		32-149%
2051-24-3	Decachlorobiphenyl	94%		30-150%
2051-24-3	Decachlorobiphenyl	85%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 1117650UF

Lab Sample ID: M81183-10

Matrix: AQ - Ground Water

Date Sampled: 03/10/09

Date Received: 03/10/09

Percent Solids: n/a

Project: UTC: 2009 Quarterly GW-Willow Pond

## Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analized By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Barium	< 200	200	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 4.0	4.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Copper	< 25	25	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	03/13/09	03/13/09 MA	SW846 7470A <sup>2</sup>	SW846 7470A <sup>4</sup>
Nickel	< 40	40	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA10242

(2) Instrument QC Batch: MA10245

(3) Prep QC Batch: MP13188

(4) Prep QC Batch: MP13200

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1117651		
<b>Lab Sample ID:</b>	M81183-11	<b>Date Sampled:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	03/10/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N33188.D	1	03/18/09	RT	n/a	n/a	MSN1226
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117651	<b>Date Sampled:</b>	03/10/09
<b>Lab Sample ID:</b>	M81183-11	<b>Date Received:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		79-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117651	<b>Date Sampled:</b>	03/10/09
<b>Lab Sample ID:</b>	M81183-11	<b>Date Received:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	105%		80-120%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound



## Report of Analysis

**Client Sample ID:** 1117651**Lab Sample ID:** M81183-11**Date Sampled:** 03/10/09**Matrix:** AQ - Ground Water**Date Received:** 03/10/09**Method:** CT-ETPH SW846 3510C**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC25819A.D	1	03/17/09	DG	03/11/09	OP18047	GBC1422
Run #2							

	Initial Volume	Final Volume
Run #1	920 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
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	CT-DRO (C9-C36)	ND	0.087	mg/l	
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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
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3386-33-2	1-Chlorooctadecane	89%		50-149%
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ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117651		
<b>Lab Sample ID:</b>	M81183-11	<b>Date Sampled:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	03/10/09
<b>Method:</b>	SW846 8082 SW846 3510C	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BE15068.D	1	03/13/09	SL	03/11/09	OP18048	GBE1057
Run #2							

	Initial Volume	Final Volume
Run #1	940 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.27	ug/l	
11104-28-2	Aroclor 1221	ND	0.27	ug/l	
11141-16-5	Aroclor 1232	ND	0.27	ug/l	
53469-21-9	Aroclor 1242	ND	0.27	ug/l	
12672-29-6	Aroclor 1248	ND	0.27	ug/l	
11097-69-1	Aroclor 1254	ND	0.27	ug/l	
11096-82-5	Aroclor 1260	ND	0.27	ug/l	
37324-23-5	Aroclor 1262	ND	0.27	ug/l	
11100-14-4	Aroclor 1268	ND	0.27	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	109%		32-149%
877-09-8	Tetrachloro-m-xylene	114%		32-149%
2051-24-3	Decachlorobiphenyl	119%		30-150%
2051-24-3	Decachlorobiphenyl	118%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117651UF	<b>Date Sampled:</b>	03/10/09
<b>Lab Sample ID:</b>	M81183-12	<b>Date Received:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Barium	< 200	200	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 4.0	4.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Copper	< 25	25	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	03/13/09	03/13/09 MA	SW846 7470A <sup>2</sup>	SW846 7470A <sup>4</sup>
Nickel	< 40	40	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA10242

(2) Instrument QC Batch: MA10245

(3) Prep QC Batch: MP13188

(4) Prep QC Batch: MP13200

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1117663	<b>Date Sampled:</b>	03/10/09
<b>Lab Sample ID:</b>	M81183-13	<b>Date Received:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G88874.D	1	03/19/09	EL	n/a	n/a	MSG3590
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117663	<b>Date Sampled:</b>	03/10/09
<b>Lab Sample ID:</b>	M81183-13	<b>Date Received:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		79-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117663	<b>Date Sampled:</b>	03/10/09
<b>Lab Sample ID:</b>	M81183-13	<b>Date Received:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	113%		80-120%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

3.13  
3

**Client Sample ID:** 1117663  
**Lab Sample ID:** M81183-13  
**Matrix:** AQ - Ground Water  
**Method:** CT-ETPH SW846 3510C  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Date Sampled:** 03/10/09  
**Date Received:** 03/10/09  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC25820A.D	1	03/17/09	DG	03/11/09	OP18047	GBC1422
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	ND	0.089	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
3386-33-2	1-Chlorooctadecane	75%		50-149%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	1117663						
<b>Lab Sample ID:</b>	M81183-13				<b>Date Sampled:</b>	03/10/09	
<b>Matrix:</b>	AQ - Ground Water				<b>Date Received:</b>	03/10/09	
<b>Method:</b>	SW846 8082 SW846 3510C				<b>Percent Solids:</b>	n/a	
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BE15069.D	1	03/13/09	SL	03/11/09	OP18048	GBE1057
Run #2							

	Initial Volume	Final Volume
Run #1	890 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.28	ug/l	
11104-28-2	Aroclor 1221	ND	0.28	ug/l	
11141-16-5	Aroclor 1232	ND	0.28	ug/l	
53469-21-9	Aroclor 1242	ND	0.28	ug/l	
12672-29-6	Aroclor 1248	ND	0.28	ug/l	
11097-69-1	Aroclor 1254	ND	0.28	ug/l	
11096-82-5	Aroclor 1260	ND	0.28	ug/l	
37324-23-5	Aroclor 1262	ND	0.28	ug/l	
11100-14-4	Aroclor 1268	ND	0.28	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	102%		32-149%
877-09-8	Tetrachloro-m-xylene	111%		32-149%
2051-24-3	Decachlorobiphenyl	91%		30-150%
2051-24-3	Decachlorobiphenyl	80%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1117663UF**Lab Sample ID:** M81183-14**Matrix:** AQ - Ground Water**Date Sampled:** 03/10/09**Date Received:** 03/10/09**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond**Total Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Barium	< 200	200	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 4.0	4.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Copper	< 25	25	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	03/13/09	03/13/09 MA	SW846 7470A <sup>2</sup>	SW846 7470A <sup>4</sup>
Nickel	< 40	40	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA10242

(2) Instrument QC Batch: MA10245

(3) Prep QC Batch: MP13188

(4) Prep QC Batch: MP13200

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1117662	<b>Date Sampled:</b>	03/10/09
<b>Lab Sample ID:</b>	M81183-15	<b>Date Received:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G88875.D	1	03/19/09	EL	n/a	n/a	MSG3590
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117662	<b>Date Sampled:</b>	03/10/09
<b>Lab Sample ID:</b>	M81183-15	<b>Date Received:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		79-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117662	<b>Date Sampled:</b>	03/10/09
<b>Lab Sample ID:</b>	M81183-15	<b>Date Received:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	115%		80-120%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117646		
<b>Lab Sample ID:</b>	M81183-16	<b>Date Sampled:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	03/10/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G88876.D	1	03/19/09	EL	n/a	n/a	MSG3590
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117646	<b>Date Sampled:</b>	03/10/09
<b>Lab Sample ID:</b>	M81183-16	<b>Date Received:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		79-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	1117646	<b>Date Sampled:</b>	03/10/09
<b>Lab Sample ID:</b>	M81183-16	<b>Date Received:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	114%		80-120%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1117646**Lab Sample ID:** M81183-16**Date Sampled:** 03/10/09**Matrix:** AQ - Ground Water**Date Received:** 03/10/09**Method:** CT-ETPH SW846 3510C**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC25822A.D	1	03/17/09	DG	03/11/09	OP18047	GBC1422
Run #2							

	Initial Volume	Final Volume
Run #1	880 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
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	CT-DRO (C9-C36)	ND	0.091	mg/l	
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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
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3386-33-2	1-Chlorooctadecane	101%		50-149%
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ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117646		
<b>Lab Sample ID:</b>	M81183-16	<b>Date Sampled:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	03/10/09
<b>Method:</b>	SW846 8082 SW846 3510C	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BE15070.D	1	03/13/09	SL	03/11/09	OP18048	GBE1057
Run #2							

	Initial Volume	Final Volume
Run #1	910 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.27	ug/l	
11104-28-2	Aroclor 1221	ND	0.27	ug/l	
11141-16-5	Aroclor 1232	ND	0.27	ug/l	
53469-21-9	Aroclor 1242	ND	0.27	ug/l	
12672-29-6	Aroclor 1248	ND	0.27	ug/l	
11097-69-1	Aroclor 1254	ND	0.27	ug/l	
11096-82-5	Aroclor 1260	ND	0.27	ug/l	
37324-23-5	Aroclor 1262	ND	0.27	ug/l	
11100-14-4	Aroclor 1268	ND	0.27	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	109%		32-149%
877-09-8	Tetrachloro-m-xylene	115%		32-149%
2051-24-3	Decachlorobiphenyl	124%		30-150%
2051-24-3	Decachlorobiphenyl	119%		30-150%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 1117646UF

Lab Sample ID: M81183-17

Matrix: AQ - Ground Water

Date Sampled: 03/10/09

Date Received: 03/10/09

Percent Solids: n/a

Project: UTC: 2009 Quarterly GW-Willow Pond

## Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analized By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Barium	< 200	200	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 4.0	4.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Copper	< 25	25	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	03/13/09	03/13/09 MA	SW846 7470A <sup>2</sup>	SW846 7470A <sup>4</sup>
Nickel	< 40	40	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA10242

(2) Instrument QC Batch: MA10245

(3) Prep QC Batch: MP13188

(4) Prep QC Batch: MP13200

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1117647	<b>Date Sampled:</b>	03/10/09
<b>Lab Sample ID:</b>	M81183-18	<b>Date Received:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G88877.D	1	03/19/09	EL	n/a	n/a	MSG3590
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117647	<b>Date Sampled:</b>	03/10/09
<b>Lab Sample ID:</b>	M81183-18	<b>Date Received:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		79-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117647	<b>Date Sampled:</b>	03/10/09
<b>Lab Sample ID:</b>	M81183-18	<b>Date Received:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	96%		80-120%
460-00-4	4-Bromofluorobenzene	114%		80-120%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

**Client Sample ID:** 1117647**Lab Sample ID:** M81183-18**Date Sampled:** 03/10/09**Matrix:** AQ - Ground Water**Date Received:** 03/10/09**Method:** CT-ETPH SW846 3510C**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC25823A.D	1	03/18/09	DG	03/11/09	OP18047	GBC1422
Run #2							

	Initial Volume	Final Volume
Run #1	840 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
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	CT-DRO (C9-C36)	ND	0.095	mg/l	
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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
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3386-33-2	1-Chlorooctadecane	84%		50-149%
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ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117647						
<b>Lab Sample ID:</b>	M81183-18				<b>Date Sampled:</b>	03/10/09	
<b>Matrix:</b>	AQ - Ground Water				<b>Date Received:</b>	03/10/09	
<b>Method:</b>	SW846 8082 SW846 3510C				<b>Percent Solids:</b>	n/a	
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BE15071.D	1	03/13/09	SL	03/11/09	OP18048	GBE1057
Run #2							

	Initial Volume	Final Volume
Run #1	940 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.27	ug/l	
11104-28-2	Aroclor 1221	ND	0.27	ug/l	
11141-16-5	Aroclor 1232	ND	0.27	ug/l	
53469-21-9	Aroclor 1242	ND	0.27	ug/l	
12672-29-6	Aroclor 1248	ND	0.27	ug/l	
11097-69-1	Aroclor 1254	ND	0.27	ug/l	
11096-82-5	Aroclor 1260	ND	0.27	ug/l	
37324-23-5	Aroclor 1262	ND	0.27	ug/l	
11100-14-4	Aroclor 1268	ND	0.27	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	110%		32-149%
877-09-8	Tetrachloro-m-xylene	117%		32-149%
2051-24-3	Decachlorobiphenyl	113%		30-150%
2051-24-3	Decachlorobiphenyl	110%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1117647UF**Lab Sample ID:** M81183-19**Matrix:** AQ - Ground Water**Date Sampled:** 03/10/09**Date Received:** 03/10/09**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond**Total Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Barium	< 200	200	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 4.0	4.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Copper	< 25	25	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	03/13/09	03/13/09 MA	SW846 7470A <sup>2</sup>	SW846 7470A <sup>4</sup>
Nickel	< 40	40	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA10242

(2) Instrument QC Batch: MA10245

(3) Prep QC Batch: MP13188

(4) Prep QC Batch: MP13200

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1117648	<b>Date Sampled:</b>	03/10/09
<b>Lab Sample ID:</b>	M81183-20	<b>Date Received:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N33233.D	1	03/20/09	RT	n/a	n/a	MSN1228
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	3.5	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117648	<b>Date Sampled:</b>	03/10/09
<b>Lab Sample ID:</b>	M81183-20	<b>Date Received:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		79-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117648	<b>Date Sampled:</b>	03/10/09
<b>Lab Sample ID:</b>	M81183-20	<b>Date Received:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	106%		80-120%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1117648**Lab Sample ID:** M81183-20**Date Sampled:** 03/10/09**Matrix:** AQ - Ground Water**Date Received:** 03/10/09**Method:** CT-ETPH SW846 3510C**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC25824A.D	1	03/18/09	DG	03/11/09	OP18047	GBC1422
Run #2							

	Initial Volume	Final Volume
Run #1	830 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
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	CT-DRO (C9-C36)	ND	0.096	mg/l	
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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
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3386-33-2	1-Chlorooctadecane	88%		50-149%
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ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	1117648		
<b>Lab Sample ID:</b>	M81183-20	<b>Date Sampled:</b>	03/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	03/10/09
<b>Method:</b>	SW846 8082 SW846 3510C	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BE15072.D	1	03/13/09	SL	03/11/09	OP18048	GBE1057
Run #2							

	Initial Volume	Final Volume
Run #1	920 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.27	ug/l	
11104-28-2	Aroclor 1221	ND	0.27	ug/l	
11141-16-5	Aroclor 1232	ND	0.27	ug/l	
53469-21-9	Aroclor 1242	ND	0.27	ug/l	
12672-29-6	Aroclor 1248	ND	0.27	ug/l	
11097-69-1	Aroclor 1254	ND	0.27	ug/l	
11096-82-5	Aroclor 1260	ND	0.27	ug/l	
37324-23-5	Aroclor 1262	ND	0.27	ug/l	
11100-14-4	Aroclor 1268	ND	0.27	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	108%		32-149%
877-09-8	Tetrachloro-m-xylene	116%		32-149%
2051-24-3	Decachlorobiphenyl	107%		30-150%
2051-24-3	Decachlorobiphenyl	104%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 1117648UF

Lab Sample ID: M81183-21

Matrix: AQ - Ground Water

Date Sampled: 03/10/09

Date Received: 03/10/09

Percent Solids: n/a

Project: UTC: 2009 Quarterly GW-Willow Pond

## Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Barium	< 200	200	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 4.0	4.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Copper	< 25	25	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	03/13/09	03/13/09 MA	SW846 7470A <sup>2</sup>	SW846 7470A <sup>4</sup>
Nickel	< 40	40	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	03/11/09	03/12/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA10242

(2) Instrument QC Batch: MA10245

(3) Prep QC Batch: MP13188

(4) Prep QC Batch: MP13200

RL = Reporting Limit



## Misc. Forms

### Custody Documents and Other Forms

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Includes the following where applicable:

- Certification Exceptions
- Certification Exceptions (CT)
- Chain of Custody
- RCP Form
- Sample Tracking Chronicle

Parameter Certification Exceptions

Job Number: M81183  
Account: LEA Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

The following parameters included in this report are exceptions to NELAC certification.  
The certification status of each is indicated below.

Parameter	CAS#	Method	Mat	Certification Status
Aroclor 1262	37324-23-5	SW846 8082	AQ	Certified by SOP MGC204/GC-ECD
Aroclor 1268	11100-14-4	SW846 8082	AQ	Certified by SOP MGC204/GC-ECD

4.1  
4

1074

## CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE  
MARLBOROUGH, MA 01752  
TEL: 508-481-6200 • FAX: 508-481-7753

**ACCUTEST JOB #:**

1781183

**ACCUTEST QUOTE #:**

1KB2 / 2009-453

[illegible]

## M81183: Chain of Custody

Page 1 of 4

2054

# CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE  
MARLBOROUGH, MA 01752  
TEL: 508-481-6200 • FAX: 508-481-7753

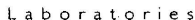
ACCUTEST JOB #: M81183  
ACCUTEST QUOTE #: K62/2009-453

CLIENT INFORMATION			FACILITY INFORMATION			ANALYTICAL INFORMATION										MATRIX CODES			
<b>NAME</b> LEA <b>ADDRESS</b> 100 Northwest Drive <b>CITY, STATE, ZIP</b> Plainville CT 06062 <b>SEND REPORT TO:</b> Robin McKinney <b>PHONE #</b> 860-747-6181			<b>PROJECT NAME</b> Willow Pond Quarterly GW <b>LOCATION</b> PWEH, CT <b>PROJECT NO.</b> 880T907.001 <b>FAX #</b>			<b>VOCs</b> 8260B <b>CT ETPH</b> <b>PCBs</b> 8082 <b>TOTAL PCBs</b> 8 + Co. N.J. 20										<b>DW - DRINKING WATER</b> <b>GW - GROUND WATER</b> <b>WW - WASTE WATER</b> <b>SO - SOIL</b> <b>SL - SLUDGE</b> <b>OI - OIL</b> <b>LIQ - OTHER LIQUID</b> <b>SOL - OTHER SOLID</b>			
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION			MATRIX	# OF BOTTLES	PRESERVATION										LAB USE ONLY		
		DATE	TIME	SAMPLED BY:			HCl	NaOH	HNO3	H2SO4	NONE	ICE	VOCs	CT ETPH	PCBs	TOTAL PCBs			
-7	1117649	3-10-09	1035	LC	6W	2	X							X	X				
	1117649		1035			4								X	X				
-8	1117649uf		1035			1			X					X			X		
-9	1117650		1235			2	X							X	X				
	1117650		1235			4								X	X				
-10	1117650uf	Ⓢ	1235	Ⓢ	Ⓢ	1			X					X			X		
-11	1117651		1400			2	X							X	X				
	1117651		1400			4								X	X		X		
-12	1117651uf		1400			1			X					X			X		
-13	1117663	↓	1200	↓	↓	2	X							X	X				
	1117663	3-10-09	1200	LC	6W	4								X	X				
DATA TURNAROUND INFORMATION			DATA DELIVERABLE INFORMATION			COMMENTS/REMARKS													
<input checked="" type="checkbox"/> 14 DAYS STANDARD <input type="checkbox"/> 7 DAYS RUSH <input type="checkbox"/> 48 HOUR EMERGENCY <input type="checkbox"/> OTHER 14 DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED			APPROVED BY: _____ <input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> COMMERCIAL "B" <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> STATE FORMS <input type="checkbox"/> OTHER (SPECIFY) _____			Use CT RCP analytical list Provide CT RCP report													
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY																			
RELINQUISHED BY SAMPLER:		DATE TIME: 3-10-09 13:45		RECEIVED BY: 1. B. McKinney		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:	
1. [Signature]		3-10-09		1. B. McKinney		2. [Signature]				2. [Signature]		3. [Signature]				3. [Signature]		4. [Signature]	
RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:	
3. [Signature]				3. [Signature]		4. [Signature]				4. [Signature]		5. [Signature]				5. [Signature]		6. [Signature]	
RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		SEAL #		PRESERVE WHERE APPLICABLE		ON ICE		TEMPERATURE							
5. [Signature]				5. [Signature]				<input type="checkbox"/>		<input type="checkbox"/>		C							

4.2  
4

M81183: Chain of Custody

Page 2 of 4



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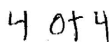
M81183

KB2/2009-453

## 4.2

Page 3 of 4





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M81183

QUOTE #:  
KB2/2009 - 453

## 4.2

Page 4 of 4

# Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Laboratory Name: Accutest New England Client: Loureiro Eng. Associates

Project Location: UTC: 2009 Quarterly GW-Willow Pond Project Number: 88UT907

Sampling Date(s): 3/10/2009

Laboratory Sample ID(s): M81183-1, M81183-2, M81183-3, M81183-4, M81183-5, M81183-6, M81183-7, M81183-8, M81183-9, M81183-10, M81183-11, M81183-12, M81183-13, M81183-14, M81183-15, M81183-16, M81183-17, M81183-18, M81183-19, M81183-20, M81183-21

Methods: CT-ETPH, SW846 6010B, SW846 7470A, SW846 8082, SW846 8260B

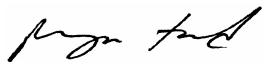
1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CTDEP method-specific Reasonable Confidence Protocol documents)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1A	Where all the method specified preservation and holding time requirements met?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1B	VPH and EPH mehdos only: Was the VPH or EPH method conducted without significant modifications (See section 11.3 of respective methods)	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
3	Were samples received at an appropriate temperature (<6° C)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
4	Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
5	a) Were reporting limits specified or referenced on the chain-of-custody?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
	b) Were these reporting limits met?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
7	Are project-specific matrix spikes and laboratory duplicates included in this data set?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

**Note:** For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or #1B is "No", the data package does not meet the requirements for "Reasonable Confidence".

I, the undersigned, attest under pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized

Signature:



Position: Lab Director

Printed Name: Reza Tand

Accutest New England

Date: 3/23/2009

## Internal Sample Tracking Chronicle

Loureiro Eng. Associates

Job No: M81183

UTC: 2009 Quarterly GW-Willow Pond

Project No: 88UT907

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M81183-1 1117643	Collected: 10-MAR-09 14:45	By: CSB	Received: 10-MAR-09	By: JB		
M81183-1	SW846 8082	13-MAR-09 06:28	SL	11-MAR-09 AJ		P8082RCP
M81183-1	CT-ETPH	17-MAR-09 17:28	DG	11-MAR-09 AJ		BCTTPH
M81183-1	SW846 8260B	17-MAR-09 19:51	RT			V8260RCP
M81183-2 1117643UF	Collected: 10-MAR-09 14:45	By: CSB	Received: 10-MAR-09	By: JB		
M81183-2	SW846 6010B	12-MAR-09 12:02	EAL	11-MAR-09 EAL		AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M81183-2	SW846 7470A	13-MAR-09 17:02	MA	13-MAR-09 MA		HG
M81183-3 1117644	Collected: 10-MAR-09 12:45	By: CSB	Received: 10-MAR-09	By: JB		
M81183-3	SW846 8082	13-MAR-09 07:05	SL	11-MAR-09 AJ		P8082RCP
M81183-3	CT-ETPH	17-MAR-09 18:08	DG	11-MAR-09 AJ		BCTTPH
M81183-3	SW846 8260B	17-MAR-09 20:19	RT			V8260RCP
M81183-4 1117644UF	Collected: 10-MAR-09 12:45	By: CSB	Received: 10-MAR-09	By: JB		
M81183-4	SW846 6010B	12-MAR-09 12:59	EAL	11-MAR-09 EAL		AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M81183-4	SW846 7470A	13-MAR-09 16:41	MA	13-MAR-09 MA		HG
M81183-5 1117645	Collected: 10-MAR-09 10:15	By: CSB	Received: 10-MAR-09	By: JB		
M81183-5	SW846 8082	13-MAR-09 07:42	SL	11-MAR-09 AJ		P8082RCP
M81183-5	CT-ETPH	17-MAR-09 18:47	DG	11-MAR-09 AJ		BCTTPH
M81183-5	SW846 8260B	19-MAR-09 15:47	RT			V8260RCP
M81183-6 1117645UF	Collected: 10-MAR-09 10:15	By: CSB	Received: 10-MAR-09	By: JB		
M81183-6	SW846 6010B	12-MAR-09 13:04	EAL	11-MAR-09 EAL		AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN

## Internal Sample Tracking Chronicle

Loureiro Eng. Associates

Job No: M81183

UTC: 2009 Quarterly GW-Willow Pond  
Project No: 88UT907

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M81183-6	SW846 7470A	13-MAR-09 17:04	MA	13-MAR-09	MA	HG
M81183-7 1117649	Collected: 10-MAR-09 10:35 By: LC		Received: 10-MAR-09 By: JB			
M81183-7	SW846 8082	13-MAR-09 08:19	SL	11-MAR-09	AJ	P8082RCP
M81183-7	CT-ETPH	17-MAR-09 19:26	DG	11-MAR-09	AJ	BCTTPH
M81183-7	SW846 8260B	19-MAR-09 16:15	RT			V8260RCP
M81183-8 1117649UF	Collected: 10-MAR-09 10:35 By: LC		Received: 10-MAR-09 By: JB			
M81183-8	SW846 6010B	12-MAR-09 13:10	EAL	11-MAR-09	EAL	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M81183-8	SW846 7470A	13-MAR-09 17:07	MA	13-MAR-09	MA	HG
M81183-9 1117650	Collected: 10-MAR-09 12:35 By: LC		Received: 10-MAR-09 By: JB			
M81183-9	SW846 8082	13-MAR-09 09:33	SL	11-MAR-09	AJ	P8082RCP
M81183-9	CT-ETPH	17-MAR-09 20:06	DG	11-MAR-09	AJ	BCTTPH
M81183-9	SW846 8260B	19-MAR-09 16:44	RT			V8260RCP
M81183-10 1117650UF	Collected: 10-MAR-09 12:35 By: LC		Received: 10-MAR-09 By: JB			
M81183-10	SW846 6010B	12-MAR-09 13:16	EAL	11-MAR-09	EAL	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M81183-10	SW846 7470A	13-MAR-09 17:10	MA	13-MAR-09	MA	HG
M81183-11 1117651	Collected: 10-MAR-09 14:00 By: LC		Received: 10-MAR-09 By: JB			
M81183-11	SW846 8082	13-MAR-09 10:10	SL	11-MAR-09	AJ	P8082RCP
M81183-11	CT-ETPH	17-MAR-09 20:45	DG	11-MAR-09	AJ	BCTTPH
M81183-11	SW846 8260B	18-MAR-09 20:19	RT			V8260RCP
M81183-12 1117651UF	Collected: 10-MAR-09 14:00 By: LC		Received: 10-MAR-09 By: JB			

## Internal Sample Tracking Chronicle

Loureiro Eng. Associates

Job No: M81183

UTC: 2009 Quarterly GW-Willow Pond  
Project No: 88UT907

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M81183-12	SW846 6010B	12-MAR-09 13:40	EAL	11-MAR-09	EAL	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M81183-12	SW846 7470A	13-MAR-09 17:12	MA	13-MAR-09	MA	HG
M81183-13 Collected: 10-MAR-09 12:00 By: LC Received: 10-MAR-09 By: JB 1117663						
M81183-13	SW846 8082	13-MAR-09 10:48	SL	11-MAR-09	AJ	P8082RCP
M81183-13	CT-ETPH	17-MAR-09 21:24	DG	11-MAR-09	AJ	BCTTPH
M81183-13	SW846 8260B	19-MAR-09 11:52	EL			V8260RCP
M81183-14 Collected: 10-MAR-09 12:00 By: LC Received: 10-MAR-09 By: JB 1117663UF						
M81183-14	SW846 6010B	12-MAR-09 13:46	EAL	11-MAR-09	EAL	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M81183-14	SW846 7470A	13-MAR-09 17:14	MA	13-MAR-09	MA	HG
M81183-15 Collected: 10-MAR-09 12:00 By: LC Received: 10-MAR-09 By: JB 1117662						
M81183-15	SW846 8260B	19-MAR-09 12:19	EL			V8260RCP
M81183-16 Collected: 10-MAR-09 10:45 By: NE Received: 10-MAR-09 By: JB 1117646						
M81183-16	SW846 8082	13-MAR-09 11:25	SL	11-MAR-09	AJ	P8082RCP
M81183-16	CT-ETPH	17-MAR-09 22:43	DG	11-MAR-09	AJ	BCTTPH
M81183-16	SW846 8260B	19-MAR-09 12:46	EL			V8260RCP
M81183-17 Collected: 10-MAR-09 10:45 By: NE Received: 10-MAR-09 By: JB 1117646UF						
M81183-17	SW846 6010B	12-MAR-09 13:51	EAL	11-MAR-09	EAL	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M81183-17	SW846 7470A	13-MAR-09 17:17	MA	13-MAR-09	MA	HG
M81183-18 Collected: 10-MAR-09 12:55 By: NE Received: 10-MAR-09 By: JB 1117647						

## Internal Sample Tracking Chronicle

Loureiro Eng. Associates

Job No: M81183

UTC: 2009 Quarterly GW-Willow Pond  
Project No: 88UT907

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M81183-18	SW846 8082	13-MAR-09 12:02	SL	11-MAR-09	AJ	P8082RCP
M81183-18	CT-ETPH	18-MAR-09 08:30	DG	11-MAR-09	AJ	BCTTPH
M81183-18	SW846 8260B	19-MAR-09 13:13	EL			V8260RCP
M81183-19 Collected: 10-MAR-09 12:55 By: NE Received: 10-MAR-09 By: JB 1117647UF						
M81183-19	SW846 6010B	12-MAR-09 13:57	EAL	11-MAR-09	EAL	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M81183-19	SW846 7470A	13-MAR-09 17:24	MA	13-MAR-09	MA	HG
M81183-20 Collected: 10-MAR-09 14:25 By: NE Received: 10-MAR-09 By: JB 1117648						
M81183-20	SW846 8082	13-MAR-09 12:39	SL	11-MAR-09	AJ	P8082RCP
M81183-20	CT-ETPH	18-MAR-09 09:04	DG	11-MAR-09	AJ	BCTTPH
M81183-20	SW846 8260B	20-MAR-09 13:43	RT			V8260RCP
M81183-21 Collected: 10-MAR-09 14:25 By: NE Received: 10-MAR-09 By: JB 1117648UF						
M81183-21	SW846 6010B	12-MAR-09 14:03	EAL	11-MAR-09	EAL	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M81183-21	SW846 7470A	13-MAR-09 17:26	MA	13-MAR-09	MA	HG



## GC/MS Volatiles

5

### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries



## Method Blank Summary

Page 1 of 3

**Job Number:** M81183

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1225-MB	N33143.D	1	03/17/09	RT	n/a	n/a	MSN1225

The QC reported here applies to the following samples:

Method: SW846 8260B

M81183-1, M81183-3

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	

## Method Blank Summary

Page 2 of 3

**Job Number:** M81183

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1225-MB	N33143.D	1	03/17/09	RT	n/a	n/a	MSN1225

The QC reported here applies to the following samples:

Method: SW846 8260B

M81183-1, M81183-3

CAS No.	Compound	Result	RL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

Method Blank Summary

Job Number: M81183  
Account: LEA Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1225-MB	N33143.D	1	03/17/09	RT	n/a	n/a	MSN1225

The QC reported here applies to the following samples: Method: SW846 8260B

M81183-1, M81183-3

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	100% 79-130%
2037-26-5	Toluene-D8	99% 80-120%
460-00-4	4-Bromofluorobenzene	105% 80-120%

## Method Blank Summary

Page 1 of 3

**Job Number:** M81183

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1226-MB	N33177.D	1	03/18/09	RT	n/a	n/a	MSN1226

The QC reported here applies to the following samples:

Method: SW846 8260B

M81183-11

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	

## Method Blank Summary

Page 2 of 3

**Job Number:** M81183  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1226-MB	N33177.D	1	03/18/09	RT	n/a	n/a	MSN1226

The QC reported here applies to the following samples:

Method: SW846 8260B

M81183-11

CAS No.	Compound	Result	RL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

Method Blank Summary

Job Number: M81183  
Account: LEA Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1226-MB	N33177.D	1	03/18/09	RT	n/a	n/a	MSN1226

The QC reported here applies to the following samples: Method: SW846 8260B

M81183-11

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	103% 79-130%
2037-26-5	Toluene-D8	98% 80-120%
460-00-4	4-Bromofluorobenzene	103% 80-120%

## Method Blank Summary

Page 1 of 3

**Job Number:** M81183

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG3590-MB	G88873.D	1	03/19/09	EL	n/a	n/a	MSG3590

The QC reported here applies to the following samples:

Method: SW846 8260B

M81183-13, M81183-15, M81183-16, M81183-18

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	



## Method Blank Summary

Page 2 of 3

**Job Number:** M81183

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG3590-MB	G88873.D	1	03/19/09	EL	n/a	n/a	MSG3590

The QC reported here applies to the following samples:

Method: SW846 8260B

M81183-13, M81183-15, M81183-16, M81183-18

CAS No.	Compound	Result	RL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

Method Blank Summary

Job Number: M81183  
Account: LEA Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG3590-MB	G88873.D	1	03/19/09	EL	n/a	n/a	MSG3590

The QC reported here applies to the following samples: Method: SW846 8260B

M81183-13, M81183-15, M81183-16, M81183-18

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	101% 79-130%
2037-26-5	Toluene-D8	99% 80-120%
460-00-4	4-Bromofluorobenzene	110% 80-120%

## Method Blank Summary

Page 1 of 3

**Job Number:** M81183

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1227-MB	N33205.D	1	03/19/09	RT	n/a	n/a	MSN1227

The QC reported here applies to the following samples:

Method: SW846 8260B

M81183-5, M81183-7, M81183-9

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	

## Method Blank Summary

Page 2 of 3

**Job Number:** M81183

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1227-MB	N33205.D	1	03/19/09	RT	n/a	n/a	MSN1227

The QC reported here applies to the following samples:

Method: SW846 8260B

M81183-5, M81183-7, M81183-9

CAS No.	Compound	Result	RL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

Method Blank Summary

Job Number: M81183  
Account: LEA Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1227-MB	N33205.D	1	03/19/09	RT	n/a	n/a	MSN1227

The QC reported here applies to the following samples: Method: SW846 8260B

M81183-5, M81183-7, M81183-9

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	102% 79-130%
2037-26-5	Toluene-D8	99% 80-120%
460-00-4	4-Bromofluorobenzene	105% 80-120%

## Method Blank Summary

Page 1 of 3

**Job Number:** M81183**Account:** LEA Loureiro Eng. Associates**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1228-MB	N33232.D	1	03/20/09	RT	n/a	n/a	MSN1228

**The QC reported here applies to the following samples:****Method:** SW846 8260B

M81183-20

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	

## Method Blank Summary

Page 2 of 3

**Job Number:** M81183

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1228-MB	N33232.D	1	03/20/09	RT	n/a	n/a	MSN1228

The QC reported here applies to the following samples:

Method: SW846 8260B

M81183-20

CAS No.	Compound	Result	RL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	



Method Blank Summary

Job Number: M81183  
Account: LEA Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1228-MB	N33232.D	1	03/20/09	RT	n/a	n/a	MSN1228

The QC reported here applies to the following samples: Method: SW846 8260B

M81183-20

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	104% 79-130%
2037-26-5	Toluene-D8	99% 80-120%
460-00-4	4-Bromofluorobenzene	106% 80-120%

# Blank Spike/Blank Spike Duplicate Summary

Page 1 of 3

Job Number: M81183

Account: LEA Loureiro Eng. Associates

Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1225-BS	N33140.D	1	03/17/09	RT	n/a	n/a	MSN1225
MSN1225-BSD	N33141.D	1	03/17/09	RT	n/a	n/a	MSN1225

The QC reported here applies to the following samples:

Method: SW846 8260B

M81183-1, M81183-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	48.4	97	53.6	107	10	30-150/25
107-13-1	Acrylonitrile	250	228	91	265	106	15	60-145/25
71-43-2	Benzene	50	55.0	110	58.6	117	6	78-120/25
108-86-1	Bromobenzene	50	51.3	103	55.7	111	8	76-120/25
75-27-4	Bromodichloromethane	50	57.6	115	61.8	124	7	70-137/25
75-25-2	Bromoform	50	43.7	87	48.0	96	9	66-136/25
74-83-9	Bromomethane	50	53.1	106	59.4	119	11	50-143/25
78-93-3	2-Butanone (MEK)	50	45.1	90	51.6	103	13	53-150/25
104-51-8	n-Butylbenzene	50	53.0	106	57.6	115	8	70-141/25
135-98-8	sec-Butylbenzene	50	56.9	114	61.5	123	8	74-130/25
98-06-6	tert-Butylbenzene	50	57.1	114	61.9	124	8	73-134/25
75-15-0	Carbon disulfide	50	59.7	119	65.1	130	9	56-147/25
56-23-5	Carbon tetrachloride	50	58.3	117	62.7	125	7	64-151/25
108-90-7	Chlorobenzene	50	51.7	103	56.0	112	8	75-120/25
75-00-3	Chloroethane	50	53.7	107	57.8	116	7	50-160/25
67-66-3	Chloroform	50	53.7	107	58.6	117	9	73-130/25
74-87-3	Chloromethane	50	44.0	88	47.7	95	8	40-150/25
95-49-8	o-Chlorotoluene	50	54.3	109	59.1	118	8	75-125/25
106-43-4	p-Chlorotoluene	50	53.9	108	58.0	116	7	73-127/25
96-12-8	1,2-Dibromo-3-chloropropane	50	43.0	86	47.4	95	10	53-149/25
124-48-1	Dibromochloromethane	50	54.7	109	60.5	121	10	77-130/25
106-93-4	1,2-Dibromoethane	50	48.3	97	53.4	107	10	70-134/25
95-50-1	1,2-Dichlorobenzene	50	50.3	101	54.4	109	8	76-122/25
541-73-1	1,3-Dichlorobenzene	50	50.9	102	54.9	110	8	73-124/25
106-46-7	1,4-Dichlorobenzene	50	49.8	100	53.7	107	8	73-123/25
75-71-8	Dichlorodifluoromethane	50	54.0	108	58.4	117	8	10-150/25
75-34-3	1,1-Dichloroethane	50	53.8	108	58.6	117	9	71-130/25
107-06-2	1,2-Dichloroethane	50	50.8	102	55.3	111	8	63-145/25
75-35-4	1,1-Dichloroethene	50	57.1	114	61.9	124	8	70-128/25
156-59-2	cis-1,2-Dichloroethene	50	54.1	108	59.2	118	9	70-123/25
156-60-5	trans-1,2-Dichloroethene	50	56.2	112	61.5	123	9	70-126/25
78-87-5	1,2-Dichloropropane	50	53.0	106	57.0	114	7	76-124/25
142-28-9	1,3-Dichloropropane	50	49.2	98	54.3	109	10	79-123/25
594-20-7	2,2-Dichloropropane	50	52.7	105	56.3	113	7	30-150/25
563-58-6	1,1-Dichloropropene	50	55.8	112	58.6	117	5	76-128/25
10061-01-5	cis-1,3-Dichloropropene	50	49.6	99	53.8	108	8	70-138/25

## Blank Spike/Blank Spike Duplicate Summary

Page 2 of 3

Job Number: M81183

Account: LEA Loureiro Eng. Associates

Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1225-BS	N33140.D	1	03/17/09	RT	n/a	n/a	MSN1225
MSN1225-BSD	N33141.D	1	03/17/09	RT	n/a	n/a	MSN1225

The QC reported here applies to the following samples:

Method: SW846 8260B

M81183-1, M81183-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	50	47.6	95	51.9	104	9	61-140/25
100-41-4	Ethylbenzene	50	54.2	108	57.9	116	7	79-123/25
76-13-1	Freon 113	50	62.3	125	67.3	135	8	66-141/25
87-68-3	Hexachlorobutadiene	50	53.5	107	57.1	114	7	60-148/25
591-78-6	2-Hexanone	50	42.8	86	48.0	96	11	52-146/25
98-82-8	Isopropylbenzene	50	58.0	116	62.3	125	7	75-128/25
99-87-6	p-Isopropyltoluene	50	55.1	110	59.0	118	7	73-130/25
1634-04-4	Methyl Tert Butyl Ether	50	50.3	101	56.5	113	12	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	44.2	88	51.1	102	14	60-145/25
74-95-3	Methylene bromide	50	48.1	96	53.5	107	11	76-127/25
75-09-2	Methylene chloride	50	55.2	110	60.6	121	9	70-130/25
91-20-3	Naphthalene	50	46.9	94	52.6	105	11	62-140/25
103-65-1	n-Propylbenzene	50	57.4	115	62.0	124	8	73-130/25
100-42-5	Styrene	50	54.9	110	59.3	119	8	70-129/25
630-20-6	1,1,1,2-Tetrachloroethane	50	53.4	107	57.0	114	7	81-126/25
79-34-5	1,1,2,2-Tetrachloroethane	50	47.7	95	53.3	107	11	63-142/25
127-18-4	Tetrachloroethene	50	52.8	106	56.3	113	6	70-130/25
109-99-9	Tetrahydrofuran	50	42.5	85	49.1	98	14	50-147/25
108-88-3	Toluene	50	53.7	107	57.4	115	7	77-121/25
110-57-6	Trans-1,4-Dichloro-2-Butene	50	45.4	91	50.9	102	11	30-150/25
87-61-6	1,2,3-Trichlorobenzene	50	49.6	99	54.0	108	8	70-130/25
120-82-1	1,2,4-Trichlorobenzene	50	49.4	99	54.3	109	9	64-136/25
71-55-6	1,1,1-Trichloroethane	50	57.3	115	62.4	125	9	70-142/25
79-00-5	1,1,2-Trichloroethane	50	51.7	103	56.5	113	9	79-123/25
79-01-6	Trichloroethene	50	56.1	112	60.4	121	7	72-128/25
75-69-4	Trichlorofluoromethane	50	53.0	106	58.2	116	9	54-151/25
96-18-4	1,2,3-Trichloropropane	50	47.1	94	53.7	107	13	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	56.1	112	60.4	121	7	73-130/25
108-67-8	1,3,5-Trimethylbenzene	50	55.3	111	59.9	120	8	73-130/25
75-01-4	Vinyl chloride	50	57.1	114	61.6	123	8	45-150/25
	m,p-Xylene	100	108	108	117	117	8	74-127/25
95-47-6	o-Xylene	50	53.3	107	57.5	115	8	79-125/25

## Blank Spike/Blank Spike Duplicate Summary

Page 3 of 3

**Job Number:** M81183

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1225-BS	N33140.D	1	03/17/09	RT	n/a	n/a	MSN1225
MSN1225-BSD	N33141.D	1	03/17/09	RT	n/a	n/a	MSN1225

The QC reported here applies to the following samples:

Method: SW846 8260B

M81183-1, M81183-3

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	101%	103%	79-130%
2037-26-5	Toluene-D8	100%	100%	80-120%
460-00-4	4-Bromofluorobenzene	101%	102%	80-120%

# Blank Spike/Blank Spike Duplicate Summary

Page 1 of 3

Job Number: M81183

Account: LEA Loureiro Eng. Associates

Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1226-BS	N33174.D	1	03/18/09	RT	n/a	n/a	MSN1226
MSN1226-BSD	N33175.D	1	03/18/09	RT	n/a	n/a	MSN1226

The QC reported here applies to the following samples:

Method: SW846 8260B

M81183-11

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	49.3	99	44.6	89	10	30-150/25
107-13-1	Acrylonitrile	250	235	94	212	85	10	60-145/25
71-43-2	Benzene	50	54.9	110	48.9	98	12	78-120/25
108-86-1	Bromobenzene	50	51.6	103	45.6	91	12	76-120/25
75-27-4	Bromodichloromethane	50	58.2	116	51.4	103	12	70-137/25
75-25-2	Bromoform	50	45.0	90	41.3	83	9	66-136/25
74-83-9	Bromomethane	50	53.5	107	47.6	95	12	50-143/25
78-93-3	2-Butanone (MEK)	50	48.3	97	38.9	78	22	53-150/25
104-51-8	n-Butylbenzene	50	52.4	105	46.4	93	12	70-141/25
135-98-8	sec-Butylbenzene	50	56.0	112	49.6	99	12	74-130/25
98-06-6	tert-Butylbenzene	50	57.4	115	50.5	101	13	73-134/25
75-15-0	Carbon disulfide	50	59.0	118	52.6	105	11	56-147/25
56-23-5	Carbon tetrachloride	50	57.8	116	51.2	102	12	64-151/25
108-90-7	Chlorobenzene	50	52.5	105	46.9	94	11	75-120/25
75-00-3	Chloroethane	50	53.1	106	47.5	95	11	50-160/25
67-66-3	Chloroform	50	54.6	109	48.4	97	12	73-130/25
74-87-3	Chloromethane	50	46.7	93	39.8	80	16	40-150/25
95-49-8	o-Chlorotoluene	50	54.7	109	48.5	97	12	75-125/25
106-43-4	p-Chlorotoluene	50	54.2	108	47.5	95	13	73-127/25
96-12-8	1,2-Dibromo-3-chloropropane	50	44.0	88	38.9	78	12	53-149/25
124-48-1	Dibromochloromethane	50	55.9	112	50.4	101	10	77-130/25
106-93-4	1,2-Dibromoethane	50	49.5	99	44.8	90	10	70-134/25
95-50-1	1,2-Dichlorobenzene	50	51.0	102	45.2	90	12	76-122/25
541-73-1	1,3-Dichlorobenzene	50	51.1	102	45.3	91	12	73-124/25
106-46-7	1,4-Dichlorobenzene	50	50.3	101	44.7	89	12	73-123/25
75-71-8	Dichlorodifluoromethane	50	52.1	104	45.3	91	14	10-150/25
75-34-3	1,1-Dichloroethane	50	54.1	108	47.8	96	12	71-130/25
107-06-2	1,2-Dichloroethane	50	51.3	103	46.0	92	11	63-145/25
75-35-4	1,1-Dichloroethene	50	55.8	112	49.4	99	12	70-128/25
156-59-2	cis-1,2-Dichloroethene	50	54.9	110	48.4	97	13	70-123/25
156-60-5	trans-1,2-Dichloroethene	50	56.2	112	50.1	100	11	70-126/25
78-87-5	1,2-Dichloropropane	50	53.3	107	47.6	95	11	76-124/25
142-28-9	1,3-Dichloropropane	50	50.3	101	45.4	91	10	79-123/25
594-20-7	2,2-Dichloropropane	50	52.3	105	46.1	92	13	30-150/25
563-58-6	1,1-Dichloropropene	50	54.8	110	48.3	97	13	76-128/25
10061-01-5	cis-1,3-Dichloropropene	50	50.0	100	44.3	89	12	70-138/25

## Blank Spike/Blank Spike Duplicate Summary

Page 2 of 3

Job Number: M81183

Account: LEA Loureiro Eng. Associates

Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1226-BS	N33174.D	1	03/18/09	RT	n/a	n/a	MSN1226
MSN1226-BSD	N33175.D	1	03/18/09	RT	n/a	n/a	MSN1226

The QC reported here applies to the following samples:

Method: SW846 8260B

M81183-11

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	50	48.2	96	42.9	86	12	61-140/25
100-41-4	Ethylbenzene	50	54.0	108	48.4	97	11	79-123/25
76-13-1	Freon 113	50	60.9	122	53.9	108	12	66-141/25
87-68-3	Hexachlorobutadiene	50	53.7	107	46.4	93	15	60-148/25
591-78-6	2-Hexanone	50	45.9	92	38.2	76	18	52-146/25
98-82-8	Isopropylbenzene	50	58.2	116	51.0	102	13	75-128/25
99-87-6	p-Isopropyltoluene	50	54.6	109	48.3	97	12	73-130/25
1634-04-4	Methyl Tert Butyl Ether	50	51.3	103	46.8	94	9	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	45.6	91	41.0	82	11	60-145/25
74-95-3	Methylene bromide	50	49.8	100	44.8	90	11	76-127/25
75-09-2	Methylene chloride	50	56.2	112	49.8	100	12	70-130/25
91-20-3	Naphthalene	50	48.2	96	42.8	86	12	62-140/25
103-65-1	n-Propylbenzene	50	57.5	115	50.4	101	13	73-130/25
100-42-5	Styrene	50	55.5	111	49.8	100	11	70-129/25
630-20-6	1,1,1,2-Tetrachloroethane	50	54.1	108	48.5	97	11	81-126/25
79-34-5	1,1,2,2-Tetrachloroethane	50	48.3	97	43.0	86	12	63-142/25
127-18-4	Tetrachloroethene	50	52.4	105	46.6	93	12	70-130/25
109-99-9	Tetrahydrofuran	50	44.4	89	39.7	79	11	50-147/25
108-88-3	Toluene	50	54.1	108	47.8	96	12	77-121/25
110-57-6	Trans-1,4-Dichloro-2-Butene	50	47.0	94	43.2	86	8	30-150/25
87-61-6	1,2,3-Trichlorobenzene	50	50.4	101	44.3	89	13	70-130/25
120-82-1	1,2,4-Trichlorobenzene	50	50.7	101	44.5	89	13	64-136/25
71-55-6	1,1,1-Trichloroethane	50	57.7	115	51.0	102	12	70-142/25
79-00-5	1,1,2-Trichloroethane	50	51.8	104	47.1	94	10	79-123/25
79-01-6	Trichloroethene	50	55.6	111	49.7	99	11	72-128/25
75-69-4	Trichlorofluoromethane	50	52.8	106	46.6	93	12	54-151/25
96-18-4	1,2,3-Trichloropropane	50	48.5	97	43.5	87	11	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	55.9	112	49.6	99	12	73-130/25
108-67-8	1,3,5-Trimethylbenzene	50	55.5	111	48.9	98	13	73-130/25
75-01-4	Vinyl chloride	50	54.4	109	46.9	94	15	45-150/25
	m,p-Xylene	100	110	110	98.0	98	12	74-127/25
95-47-6	o-Xylene	50	54.3	109	48.1	96	12	79-125/25

## Blank Spike/Blank Spike Duplicate Summary

Page 3 of 3

**Job Number:** M81183

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1226-BS	N33174.D	1	03/18/09	RT	n/a	n/a	MSN1226
MSN1226-BSD	N33175.D	1	03/18/09	RT	n/a	n/a	MSN1226

The QC reported here applies to the following samples:

Method: SW846 8260B

M81183-11

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	102%	101%	79-130%
2037-26-5	Toluene-D8	100%	100%	80-120%
460-00-4	4-Bromofluorobenzene	101%	100%	80-120%



# Blank Spike/Blank Spike Duplicate Summary

Page 1 of 3

**Job Number:** M81183

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG3590-BS	G88870A.D	1	03/19/09	EL	n/a	n/a	MSG3590
MSG3590-BSD	G88871.D	1	03/19/09	EL	n/a	n/a	MSG3590

The QC reported here applies to the following samples:

Method: SW846 8260B

M81183-13, M81183-15, M81183-16, M81183-18

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	52.4	105	42.9	86	20	30-150/25
107-13-1	Acrylonitrile	250	257	103	254	102	1	60-145/25
71-43-2	Benzene	50	46.5	93	46.3	93	0	78-120/25
108-86-1	Bromobenzene	50	48.9	98	47.5	95	3	76-120/25
75-27-4	Bromodichloromethane	50	53.0	106	52.1	104	2	70-137/25
75-25-2	Bromoform	50	50.3	101	50.0	100	1	66-136/25
74-83-9	Bromomethane	50	45.0	90	44.8	90	0	50-143/25
78-93-3	2-Butanone (MEK)	50	51.2	102	45.4	91	12	53-150/25
104-51-8	n-Butylbenzene	50	51.4	103	50.8	102	1	70-141/25
135-98-8	sec-Butylbenzene	50	49.4	99	49.1	98	1	74-130/25
98-06-6	tert-Butylbenzene	50	48.5	97	47.8	96	1	73-134/25
75-15-0	Carbon disulfide	50	49.9	100	49.5	99	1	56-147/25
56-23-5	Carbon tetrachloride	50	51.1	102	51.0	102	0	64-151/25
108-90-7	Chlorobenzene	50	47.0	94	46.7	93	1	75-120/25
75-00-3	Chloroethane	50	45.7	91	46.0	92	1	50-160/25
67-66-3	Chloroform	50	47.4	95	46.4	93	2	73-130/25
74-87-3	Chloromethane	50	51.8	104	50.7	101	2	40-150/25
95-49-8	o-Chlorotoluene	50	47.8	96	46.6	93	3	75-125/25
106-43-4	p-Chlorotoluene	50	48.7	97	47.7	95	2	73-127/25
96-12-8	1,2-Dibromo-3-chloropropane	50	42.7	85	43.7	87	2	53-149/25
124-48-1	Dibromochloromethane	50	52.1	104	51.5	103	1	77-130/25
106-93-4	1,2-Dibromoethane	50	48.9	98	48.6	97	1	70-134/25
95-50-1	1,2-Dichlorobenzene	50	49.3	99	49.0	98	1	76-122/25
541-73-1	1,3-Dichlorobenzene	50	49.3	99	48.9	98	1	73-124/25
106-46-7	1,4-Dichlorobenzene	50	48.2	96	47.7	95	1	73-123/25
75-71-8	Dichlorodifluoromethane	50	58.1	116	58.3	117	0	10-150/25
75-34-3	1,1-Dichloroethane	50	47.6	95	46.8	94	2	71-130/25
107-06-2	1,2-Dichloroethane	50	50.6	101	49.8	100	2	63-145/25
75-35-4	1,1-Dichloroethene	50	47.0	94	46.4	93	1	70-128/25
156-59-2	cis-1,2-Dichloroethene	50	46.2	92	45.2	90	2	70-123/25
156-60-5	trans-1,2-Dichloroethene	50	48.3	97	47.4	95	2	70-126/25
78-87-5	1,2-Dichloropropane	50	49.0	98	47.7	95	3	76-124/25
142-28-9	1,3-Dichloropropane	50	47.9	96	47.4	95	1	79-123/25
594-20-7	2,2-Dichloropropane	50	50.9	102	50.5	101	1	30-150/25
563-58-6	1,1-Dichloropropene	50	48.9	98	48.9	98	0	76-128/25
10061-01-5	cis-1,3-Dichloropropene	50	49.0	98	48.1	96	2	70-138/25

## Blank Spike/Blank Spike Duplicate Summary

Page 2 of 3

Job Number: M81183

Account: LEA Loureiro Eng. Associates

Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG3590-BS	G88870A.D	1	03/19/09	EL	n/a	n/a	MSG3590
MSG3590-BSD	G88871.D	1	03/19/09	EL	n/a	n/a	MSG3590

The QC reported here applies to the following samples:

Method: SW846 8260B

M81183-13, M81183-15, M81183-16, M81183-18

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	50	50.4	101	49.6	99	2	61-140/25
100-41-4	Ethylbenzene	50	48.1	96	47.8	96	1	79-123/25
76-13-1	Freon 113	50	51.3	103	51.0	102	1	66-141/25
87-68-3	Hexachlorobutadiene	50	47.8	96	47.2	94	1	60-148/25
591-78-6	2-Hexanone	50	51.9	104	46.2	92	12	52-146/25
98-82-8	Isopropylbenzene	50	49.5	99	49.0	98	1	75-128/25
99-87-6	p-Isopropyltoluene	50	49.9	100	49.7	99	0	73-130/25
1634-04-4	Methyl Tert Butyl Ether	50	48.6	97	47.7	95	2	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	53.1	106	52.5	105	1	60-145/25
74-95-3	Methylene bromide	50	48.3	97	47.5	95	2	76-127/25
75-09-2	Methylene chloride	50	49.6	99	48.7	97	2	70-130/25
91-20-3	Naphthalene	50	47.7	95	45.6	91	5	62-140/25
103-65-1	n-Propylbenzene	50	50.4	101	49.6	99	2	73-130/25
100-42-5	Styrene	50	49.4	99	49.5	99	0	70-129/25
630-20-6	1,1,1,2-Tetrachloroethane	50	48.8	98	48.8	98	0	81-126/25
79-34-5	1,1,2,2-Tetrachloroethane	50	46.4	93	45.9	92	1	63-142/25
127-18-4	Tetrachloroethene	50	48.1	96	48.2	96	0	70-130/25
109-99-9	Tetrahydrofuran	50	49.4	99	48.7	97	1	50-147/25
108-88-3	Toluene	50	48.0	96	47.7	95	1	77-121/25
110-57-6	Trans-1,4-Dichloro-2-Butene	50	41.5	83	41.5	83	0	30-150/25
87-61-6	1,2,3-Trichlorobenzene	50	41.5	83	40.1	80	3	70-130/25
120-82-1	1,2,4-Trichlorobenzene	50	45.3	91	44.0	88	3	64-136/25
71-55-6	1,1,1-Trichloroethane	50	48.7	97	48.5	97	0	70-142/25
79-00-5	1,1,2-Trichloroethane	50	49.1	98	48.2	96	2	79-123/25
79-01-6	Trichloroethene	50	49.1	98	48.8	98	1	72-128/25
75-69-4	Trichlorofluoromethane	50	46.1	92	45.8	92	1	54-151/25
96-18-4	1,2,3-Trichloropropane	50	48.5	97	47.9	96	1	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	51.2	102	50.6	101	1	73-130/25
108-67-8	1,3,5-Trimethylbenzene	50	49.9	100	49.4	99	1	73-130/25
75-01-4	Vinyl chloride	50	56.7	113	56.9	114	0	45-150/25
	m,p-Xylene	100	96.9	97	96.8	97	0	74-127/25
95-47-6	o-Xylene	50	48.0	96	48.4	97	1	79-125/25

## Blank Spike/Blank Spike Duplicate Summary

Page 3 of 3

**Job Number:** M81183

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG3590-BS	G88870A.D	1	03/19/09	EL	n/a	n/a	MSG3590
MSG3590-BSD	G88871.D	1	03/19/09	EL	n/a	n/a	MSG3590

The QC reported here applies to the following samples:

Method: SW846 8260B

M81183-13, M81183-15, M81183-16, M81183-18

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	102%	101%	79-130%
2037-26-5	Toluene-D8	101%	101%	80-120%
460-00-4	4-Bromofluorobenzene	99%	97%	80-120%

## Blank Spike/Blank Spike Duplicate Summary

Page 1 of 3

Job Number: M81183

Account: LEA Loureiro Eng. Associates

Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1227-BS	N33202.D	1	03/19/09	RT	n/a	n/a	MSN1227
MSN1227-BSD	N33203.D	1	03/19/09	RT	n/a	n/a	MSN1227

The QC reported here applies to the following samples:

Method: SW846 8260B

M81183-5, M81183-7, M81183-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	51.9	104	45.8	92	12	30-150/25
107-13-1	Acrylonitrile	250	227	91	225	90	1	60-145/25
71-43-2	Benzene	50	50.9	102	49.2	98	3	78-120/25
108-86-1	Bromobenzene	50	46.9	94	46.0	92	2	76-120/25
75-27-4	Bromodichloromethane	50	53.8	108	52.3	105	3	70-137/25
75-25-2	Bromoform	50	42.3	85	40.9	82	3	66-136/25
74-83-9	Bromomethane	50	48.5	97	45.6	91	6	50-143/25
78-93-3	2-Butanone (MEK)	50	46.7	93	43.4	87	7	53-150/25
104-51-8	n-Butylbenzene	50	49.7	99	47.7	95	4	70-141/25
135-98-8	sec-Butylbenzene	50	52.7	105	50.7	101	4	74-130/25
98-06-6	tert-Butylbenzene	50	53.0	106	51.0	102	4	73-134/25
75-15-0	Carbon disulfide	50	55.0	110	53.6	107	3	56-147/25
56-23-5	Carbon tetrachloride	50	54.0	108	52.6	105	3	64-151/25
108-90-7	Chlorobenzene	50	48.0	96	46.7	93	3	75-120/25
75-00-3	Chloroethane	50	49.6	99	47.5	95	4	50-160/25
67-66-3	Chloroform	50	49.8	100	49.0	98	2	73-130/25
74-87-3	Chloromethane	50	41.3	83	40.1	80	3	40-150/25
95-49-8	o-Chlorotoluene	50	50.6	101	48.8	98	4	75-125/25
106-43-4	p-Chlorotoluene	50	49.7	99	48.4	97	3	73-127/25
96-12-8	1,2-Dibromo-3-chloropropane	50	42.7	85	40.6	81	5	53-149/25
124-48-1	Dibromochloromethane	50	51.7	103	50.8	102	2	77-130/25
106-93-4	1,2-Dibromoethane	50	45.9	92	45.1	90	2	70-134/25
95-50-1	1,2-Dichlorobenzene	50	46.1	92	45.3	91	2	76-122/25
541-73-1	1,3-Dichlorobenzene	50	46.9	94	45.2	90	4	73-124/25
106-46-7	1,4-Dichlorobenzene	50	45.9	92	45.0	90	2	73-123/25
75-71-8	Dichlorodifluoromethane	50	47.0	94	46.0	92	2	10-150/25
75-34-3	1,1-Dichloroethane	50	49.7	99	49.3	99	1	71-130/25
107-06-2	1,2-Dichloroethane	50	47.5	95	46.7	93	2	63-145/25
75-35-4	1,1-Dichloroethene	50	51.4	103	50.1	100	3	70-128/25
156-59-2	cis-1,2-Dichloroethene	50	49.5	99	48.9	98	1	70-123/25
156-60-5	trans-1,2-Dichloroethene	50	51.9	104	50.2	100	3	70-126/25
78-87-5	1,2-Dichloropropane	50	49.7	99	48.2	96	3	76-124/25
142-28-9	1,3-Dichloropropane	50	47.3	95	45.7	91	3	79-123/25
594-20-7	2,2-Dichloropropane	50	48.3	97	47.2	94	2	30-150/25
563-58-6	1,1-Dichloropropene	50	51.1	102	49.6	99	3	76-128/25
10061-01-5	cis-1,3-Dichloropropene	50	46.2	92	45.1	90	2	70-138/25

## Blank Spike/Blank Spike Duplicate Summary

Page 2 of 3

Job Number: M81183

Account: LEA Loureiro Eng. Associates

Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1227-BS	N33202.D	1	03/19/09	RT	n/a	n/a	MSN1227
MSN1227-BSD	N33203.D	1	03/19/09	RT	n/a	n/a	MSN1227

The QC reported here applies to the following samples:

Method: SW846 8260B

M81183-5, M81183-7, M81183-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	50	45.1	90	44.0	88	2	61-140/25
100-41-4	Ethylbenzene	50	50.2	100	48.2	96	4	79-123/25
76-13-1	Freon 113	50	56.7	113	55.3	111	3	66-141/25
87-68-3	Hexachlorobutadiene	50	48.6	97	46.1	92	5	60-148/25
591-78-6	2-Hexanone	50	45.6	91	41.5	83	9	52-146/25
98-82-8	Isopropylbenzene	50	53.5	107	51.4	103	4	75-128/25
99-87-6	p-Isopropyltoluene	50	51.0	102	49.3	99	3	73-130/25
1634-04-4	Methyl Tert Butyl Ether	50	48.3	97	48.0	96	1	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	45.4	91	43.0	86	5	60-145/25
74-95-3	Methylene bromide	50	45.8	92	44.9	90	2	76-127/25
75-09-2	Methylene chloride	50	51.0	102	50.3	101	1	70-130/25
91-20-3	Naphthalene	50	45.3	91	43.2	86	5	62-140/25
103-65-1	n-Propylbenzene	50	53.2	106	51.2	102	4	73-130/25
100-42-5	Styrene	50	50.8	102	49.3	99	3	70-129/25
630-20-6	1,1,1,2-Tetrachloroethane	50	49.3	99	48.1	96	2	81-126/25
79-34-5	1,1,2,2-Tetrachloroethane	50	46.4	93	44.8	90	4	63-142/25
127-18-4	Tetrachloroethene	50	48.1	96	46.4	93	4	70-130/25
109-99-9	Tetrahydrofuran	50	43.2	86	42.0	84	3	50-147/25
108-88-3	Toluene	50	49.6	99	48.3	97	3	77-121/25
110-57-6	Trans-1,4-Dichloro-2-Butene	50	44.6	89	42.7	85	4	30-150/25
87-61-6	1,2,3-Trichlorobenzene	50	46.2	92	44.1	88	5	70-130/25
120-82-1	1,2,4-Trichlorobenzene	50	45.8	92	44.4	89	3	64-136/25
71-55-6	1,1,1-Trichloroethane	50	53.3	107	52.0	104	2	70-142/25
79-00-5	1,1,2-Trichloroethane	50	48.2	96	47.7	95	1	79-123/25
79-01-6	Trichloroethene	50	52.0	104	50.6	101	3	72-128/25
75-69-4	Trichlorofluoromethane	50	49.2	98	48.0	96	2	54-151/25
96-18-4	1,2,3-Trichloropropane	50	46.6	93	44.8	90	4	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	51.6	103	49.8	100	4	73-130/25
108-67-8	1,3,5-Trimethylbenzene	50	51.2	102	49.2	98	4	73-130/25
75-01-4	Vinyl chloride	50	51.6	103	50.3	101	3	45-150/25
	m,p-Xylene	100	101	101	97.4	97	4	74-127/25
95-47-6	o-Xylene	50	49.7	99	48.2	96	3	79-125/25

## Blank Spike/Blank Spike Duplicate Summary

Page 3 of 3

**Job Number:** M81183

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1227-BS	N33202.D	1	03/19/09	RT	n/a	n/a	MSN1227
MSN1227-BSD	N33203.D	1	03/19/09	RT	n/a	n/a	MSN1227

The QC reported here applies to the following samples:

Method: SW846 8260B

M81183-5, M81183-7, M81183-9

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	101%	102%	79-130%
2037-26-5	Toluene-D8	100%	100%	80-120%
460-00-4	4-Bromofluorobenzene	101%	101%	80-120%

# Blank Spike/Blank Spike Duplicate Summary

Page 1 of 3

Job Number: M81183

Account: LEA Loureiro Eng. Associates

Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1228-BS	N33229.D	1	03/20/09	RT	n/a	n/a	MSN1228
MSN1228-BSD	N33230.D	1	03/20/09	RT	n/a	n/a	MSN1228

The QC reported here applies to the following samples:

Method: SW846 8260B

M81183-20

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	60.7	121	61.2	122	1	30-150/25
107-13-1	Acrylonitrile	250	255	102	256	102	0	60-145/25
71-43-2	Benzene	50	58.3	117	57.2	114	2	78-120/25
108-86-1	Bromobenzene	50	53.4	107	54.0	108	1	76-120/25
75-27-4	Bromodichloromethane	50	60.7	121	60.6	121	0	70-137/25
75-25-2	Bromoform	50	45.5	91	46.2	92	2	66-136/25
74-83-9	Bromomethane	50	55.7	111	56.9	114	2	50-143/25
78-93-3	2-Butanone (MEK)	50	54.6	109	56.4	113	3	53-150/25
104-51-8	n-Butylbenzene	50	56.9	114	56.4	113	1	70-141/25
135-98-8	sec-Butylbenzene	50	60.1	120	60.0	120	0	74-130/25
98-06-6	tert-Butylbenzene	50	60.1	120	59.9	120	0	73-134/25
75-15-0	Carbon disulfide	50	63.9	128	62.4	125	2	56-147/25
56-23-5	Carbon tetrachloride	50	62.2	124	61.0	122	2	64-151/25
108-90-7	Chlorobenzene	50	53.6	107	53.6	107	0	75-120/25
75-00-3	Chloroethane	50	58.6	117	56.9	114	3	50-160/25
67-66-3	Chloroform	50	58.1	116	57.6	115	1	73-130/25
74-87-3	Chloromethane	50	50.6	101	48.1	96	5	40-150/25
95-49-8	o-Chlorotoluene	50	57.7	115	57.6	115	0	75-125/25
106-43-4	p-Chlorotoluene	50	56.7	113	56.8	114	0	73-127/25
96-12-8	1,2-Dibromo-3-chloropropane	50	45.6	91	48.1	96	5	53-149/25
124-48-1	Dibromochloromethane	50	57.6	115	57.8	116	0	77-130/25
106-93-4	1,2-Dibromoethane	50	51.4	103	51.5	103	0	70-134/25
95-50-1	1,2-Dichlorobenzene	50	52.4	105	52.8	106	1	76-122/25
541-73-1	1,3-Dichlorobenzene	50	53.3	107	53.5	107	0	73-124/25
106-46-7	1,4-Dichlorobenzene	50	52.7	105	52.6	105	0	73-123/25
75-71-8	Dichlorodifluoromethane	50	53.3	107	51.9	104	3	10-150/25
75-34-3	1,1-Dichloroethane	50	58.7	117	57.2	114	3	71-130/25
107-06-2	1,2-Dichloroethane	50	54.7	109	54.4	109	1	63-145/25
75-35-4	1,1-Dichloroethene	50	60.0	120	59.1	118	2	70-128/25
156-59-2	cis-1,2-Dichloroethene	50	57.8	116	57.6	115	0	70-123/25
156-60-5	trans-1,2-Dichloroethene	50	60.0	120	58.5	117	3	70-126/25
78-87-5	1,2-Dichloropropane	50	56.2	112	56.2	112	0	76-124/25
142-28-9	1,3-Dichloropropane	50	52.2	104	52.8	106	1	79-123/25
594-20-7	2,2-Dichloropropane	50	57.5	115	55.0	110	4	30-150/25
563-58-6	1,1-Dichloropropene	50	58.6	117	57.2	114	2	76-128/25
10061-01-5	cis-1,3-Dichloropropene	50	52.9	106	52.6	105	1	70-138/25



## Blank Spike/Blank Spike Duplicate Summary

Page 2 of 3

Job Number: M81183

Account: LEA Loureiro Eng. Associates

Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1228-BS	N33229.D	1	03/20/09	RT	n/a	n/a	MSN1228
MSN1228-BSD	N33230.D	1	03/20/09	RT	n/a	n/a	MSN1228

The QC reported here applies to the following samples:

Method: SW846 8260B

M81183-20

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	50	50.9	102	50.9	102	0	61-140/25
100-41-4	Ethylbenzene	50	56.2	112	55.6	111	1	79-123/25
76-13-1	Freon 113	50	65.7	131	65.1	130	1	66-141/25
87-68-3	Hexachlorobutadiene	50	55.8	112	54.6	109	2	60-148/25
591-78-6	2-Hexanone	50	50.9	102	51.6	103	1	52-146/25
98-82-8	Isopropylbenzene	50	61.0	122	60.9	122	0	75-128/25
99-87-6	p-Isopropyltoluene	50	58.2	116	58.1	116	0	73-130/25
1634-04-4	Methyl Tert Butyl Ether	50	55.3	111	55.4	111	0	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	49.3	99	49.7	99	1	60-145/25
74-95-3	Methylene bromide	50	51.9	104	52.5	105	1	76-127/25
75-09-2	Methylene chloride	50	60.0	120	59.5	119	1	70-130/25
91-20-3	Naphthalene	50	50.4	101	50.4	101	0	62-140/25
103-65-1	n-Propylbenzene	50	60.2	120	60.5	121	0	73-130/25
100-42-5	Styrene	50	57.0	114	56.4	113	1	70-129/25
630-20-6	1,1,1,2-Tetrachloroethane	50	54.8	110	54.9	110	0	81-126/25
79-34-5	1,1,2,2-Tetrachloroethane	50	51.4	103	52.8	106	3	63-142/25
127-18-4	Tetrachloroethene	50	54.2	108	53.3	107	2	70-130/25
109-99-9	Tetrahydrofuran	50	46.8	94	49.8	100	6	50-147/25
108-88-3	Toluene	50	56.6	113	56.3	113	1	77-121/25
110-57-6	Trans-1,4-Dichloro-2-Butene	50	49.7	99	51.5	103	4	30-150/25
87-61-6	1,2,3-Trichlorobenzene	50	51.3	103	51.4	103	0	70-130/25
120-82-1	1,2,4-Trichlorobenzene	50	52.0	104	51.5	103	1	64-136/25
71-55-6	1,1,1-Trichloroethane	50	62.1	124	60.4	121	3	70-142/25
79-00-5	1,1,2-Trichloroethane	50	54.8	110	54.7	109	0	79-123/25
79-01-6	Trichloroethene	50	59.4	119	59.2	118	0	72-128/25
75-69-4	Trichlorofluoromethane	50	56.8	114	55.6	111	2	54-151/25
96-18-4	1,2,3-Trichloropropane	50	51.3	103	52.9	106	3	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	58.6	117	58.7	117	0	73-130/25
108-67-8	1,3,5-Trimethylbenzene	50	58.5	117	58.4	117	0	73-130/25
75-01-4	Vinyl chloride	50	61.6	123	59.0	118	4	45-150/25
	m,p-Xylene	100	112	112	111	111	1	74-127/25
95-47-6	o-Xylene	50	54.9	110	55.1	110	0	79-125/25

## Blank Spike/Blank Spike Duplicate Summary

Page 3 of 3

**Job Number:** M81183

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1228-BS	N33229.D	1	03/20/09	RT	n/a	n/a	MSN1228
MSN1228-BSD	N33230.D	1	03/20/09	RT	n/a	n/a	MSN1228

The QC reported here applies to the following samples:

Method: SW846 8260B

M81183-20

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	105%	104%	79-130%
2037-26-5	Toluene-D8	100%	101%	80-120%
460-00-4	4-Bromofluorobenzene	102%	104%	80-120%

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 3

**Job Number:** M81183  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M81180-15MS	N33160.D	100	03/17/09	RT	n/a	n/a	MSN1225
M81180-15MSD	N33161.D	100	03/17/09	RT	n/a	n/a	MSN1225
M81180-15	N33159.D	100	03/17/09	RT	n/a	n/a	MSN1225

The QC reported here applies to the following samples:

Method: SW846 8260B

M81183-1, M81183-3

CAS No.	Compound	M81180-15 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND	5000	3850	77	4040	81	5	20-150/30
107-13-1	Acrylonitrile	ND	25000	14900	60	15700	63	5	55-150/30
71-43-2	Benzene	682	5000	5690	100	5940	105	4	70-130/30
108-86-1	Bromobenzene	ND	5000	4600	92	4810	96	4	71-121/30
75-27-4	Bromodichloromethane	ND	5000	5150	103	5420	108	5	64-144/30
75-25-2	Bromoform	ND	5000	3160	63	3360	67	6	57-133/30
74-83-9	Bromomethane	ND	5000	5210	104	5670	113	8	40-146/30
78-93-3	2-Butanone (MEK)	ND	5000	1970	39	2200	44	11	34-150/30
104-51-8	n-Butylbenzene	ND	5000	5130	103	5450	109	6	61-142/30
135-98-8	sec-Butylbenzene	91.4	5000	5100	100	5420	107	6	70-130/30
98-06-6	tert-Butylbenzene	ND	5000	5160	103	5390	108	4	70-137/30
75-15-0	Carbon disulfide	ND	5000	5460	109	5620	112	3	42-151/30
56-23-5	Carbon tetrachloride	ND	5000	5110	102	5420	108	6	56-158/30
108-90-7	Chlorobenzene	ND	5000	4700	94	4940	99	5	72-122/30
75-00-3	Chloroethane	ND	5000	5200	104	5260	105	1	46-169/30
67-66-3	Chloroform	ND	5000	4970	99	5180	104	4	70-141/30
74-87-3	Chloromethane	ND	5000	5040	101	5400	108	7	33-150/30
95-49-8	o-Chlorotoluene	ND	5000	5590	112	6060	121	8	59-147/30
106-43-4	p-Chlorotoluene	ND	5000	4960	99	5310	106	7	70-130/30
96-12-8	1,2-Dibromo-3-chloropropane	ND	5000	2540	51	2710	54	6	47-156/30
124-48-1	Dibromochloromethane	ND	5000	4390	88	4740	95	8	70-130/30
106-93-4	1,2-Dibromoethane	ND	5000	3710	74	3930	79	6	65-138/30
95-50-1	1,2-Dichlorobenzene	ND	5000	4370	87	4680	94	7	72-123/30
541-73-1	1,3-Dichlorobenzene	ND	5000	4500	90	4820	96	7	70-124/30
106-46-7	1,4-Dichlorobenzene	ND	5000	4390	88	4710	94	7	70-124/30
75-71-8	Dichlorodifluoromethane	ND	5000	5150	103	5240	105	2	10-150/30
75-34-3	1,1-Dichloroethane	ND	5000	4990	100	5170	103	4	70-141/30
107-06-2	1,2-Dichloroethane	ND	5000	4430	89	4640	93	5	60-153/30
75-35-4	1,1-Dichloroethene	ND	5000	5110	102	5300	106	4	63-134/30
156-59-2	cis-1,2-Dichloroethene	32.4	5000	5000	99	5170	103	3	64-130/30
156-60-5	trans-1,2-Dichloroethene	ND	5000	5100	102	5310	106	4	70-130/30
78-87-5	1,2-Dichloropropane	ND	5000	4810	96	5080	102	5	73-130/30
142-28-9	1,3-Dichloropropane	ND	5000	3910	78	4190	84	7	75-127/30
594-20-7	2,2-Dichloropropane	ND	5000	4300	86	4410	88	3	30-150/30
563-58-6	1,1-Dichloropropene	ND	5000	4980	100	5220	104	5	73-134/30
10061-01-5	cis-1,3-Dichloropropene	ND	5000	4350	87	4630	93	6	58-142/30

# Matrix Spike/Matrix Spike Duplicate Summary

Page 2 of 3

**Job Number:** M81183  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M81180-15MS	N33160.D	100	03/17/09	RT	n/a	n/a	MSN1225
M81180-15MSD	N33161.D	100	03/17/09	RT	n/a	n/a	MSN1225
M81180-15	N33159.D	100	03/17/09	RT	n/a	n/a	MSN1225

The QC reported here applies to the following samples:

Method: SW846 8260B

M81183-1, M81183-3

CAS No.	Compound	M81180-15 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	ND		5000	3900	78	4150	83	6	53-143/30
100-41-4	Ethylbenzene	3640		5000	8520	98	9110	109	7	60-138/30
76-13-1	Freon 113	ND		5000	5550	111	5740	115	3	60-149/30
87-68-3	Hexachlorobutadiene	ND		5000	3900	78	4250	85	9	54-135/30
591-78-6	2-Hexanone	ND		5000	1990	40	2100	42	5	32-148/30
98-82-8	Isopropylbenzene	309		5000	5500	104	5950	113	8	70-130/30
99-87-6	p-Isopropyltoluene	45.8		5000	4920	97	5220	103	6	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		5000	3730	75	3870	77	4	54-144/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5000	2570	51* a	2690	54	5	53-151/30
74-95-3	Methylene bromide	ND		5000	4160	83	4380	88	5	73-136/30
75-09-2	Methylene chloride	ND		5000	5160	103	5360	107	4	64-140/30
91-20-3	Naphthalene	649		5000	3440	56	3840	64	11	48-143/30
103-65-1	n-Propylbenzene	897		5000	6120	104	6530	113	6	65-136/30
100-42-5	Styrene	ND		5000	4910	98	5200	104	6	61-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		5000	4720	94	5020	100	6	78-128/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		5000	3130	63	3360	67	7	60-150/30
127-18-4	Tetrachloroethene	ND		5000	4670	93	4870	97	4	70-130/30
109-99-9	Tetrahydrofuran	ND		5000	3390	68	3450	69	2	40-150/30
108-88-3	Toluene	13900		5000	18800	98	19900	120	6	66-134/30
110-57-6	Trans-1,4-Dichloro-2-Butene	ND		5000	2700	54	2940	59	9	20-150/30
87-61-6	1,2,3-Trichlorobenzene	ND		5000	3500	70	3860	77	10	57-127/30
120-82-1	1,2,4-Trichlorobenzene	ND		5000	3980	80	4330	87	8	57-130/30
71-55-6	1,1,1-Trichloroethane	ND		5000	5230	105	5490	110	5	62-153/30
79-00-5	1,1,2-Trichloroethane	ND		5000	4140	83	4360	87	5	77-127/30
79-01-6	Trichloroethene	ND		5000	5080	102	5270	105	4	66-132/30
75-69-4	Trichlorofluoromethane	ND		5000	4810	96	5020	100	4	48-161/30
96-18-4	1,2,3-Trichloropropane	ND		5000	3060	61	3280	66	7	61-138/30
95-63-6	1,2,4-Trimethylbenzene	6790		5000	11900	102	13300	130	11	54-143/30
108-67-8	1,3,5-Trimethylbenzene	1930		5000	7000	101	7610	114	8	62-139/30
75-01-4	Vinyl chloride	ND		5000	6620	132	6790	136	3	38-150/30
	m,p-Xylene	15200		10000	24500	93	26400	112	7	55-142/30
95-47-6	o-Xylene	6290		5000	11100	96	11900	112	7	65-136/30

## Matrix Spike/Matrix Spike Duplicate Summary

Page 3 of 3

**Job Number:** M81183

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M81180-15MS	N33160.D	100	03/17/09	RT	n/a	n/a	MSN1225
M81180-15MSD	N33161.D	100	03/17/09	RT	n/a	n/a	MSN1225
M81180-15	N33159.D	100	03/17/09	RT	n/a	n/a	MSN1225

The QC reported here applies to the following samples:

Method: SW846 8260B

M81183-1, M81183-3

CAS No.	Surrogate Recoveries	MS	MSD	M81180-15	Limits
1868-53-7	Dibromofluoromethane	102%	102%	101%	79-130%
2037-26-5	Toluene-D8	100%	101%	99%	80-120%
460-00-4	4-Bromofluorobenzene	101%	102%	104%	80-120%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 3

**Job Number:** M81183  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M81180-14MS	N33181.D	20	03/18/09	RT	n/a	n/a	MSN1226
M81180-14MSD	N33182.D	20	03/18/09	RT	n/a	n/a	MSN1226
M81180-14	N33180.D	20	03/18/09	RT	n/a	n/a	MSN1226

The QC reported here applies to the following samples:

Method: SW846 8260B

M81183-11

CAS No.	Compound	M81180-14 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND	1000	1160	116	964	96	18	20-150/30
107-13-1	Acrylonitrile	ND	5000	4980	100	4340	87	14	55-150/30
71-43-2	Benzene	3500	1000	4690	119	4060	56* a	14	70-130/30
108-86-1	Bromobenzene	ND	1000	1050	105	938	94	11	71-121/30
75-27-4	Bromodichloromethane	ND	1000	1180	118	1050	105	12	64-144/30
75-25-2	Bromoform	ND	1000	909	91	830	83	9	57-133/30
74-83-9	Bromomethane	ND	1000	1080	108	943	94	14	40-146/30
78-93-3	2-Butanone (MEK)	ND	1000	782	78	681	68	14	34-150/30
104-51-8	n-Butylbenzene	274	1000	1590	132	1400	113	13	61-142/30
135-98-8	sec-Butylbenzene	125	1000	1280	116	1130	101	12	70-130/30
98-06-6	tert-Butylbenzene	ND	1000	1170	117	1030	103	13	70-137/30
75-15-0	Carbon disulfide	ND	1000	1270	127	1060	106	18	42-151/30
56-23-5	Carbon tetrachloride	ND	1000	1220	122	1060	106	14	56-158/30
108-90-7	Chlorobenzene	ND	1000	1090	109	949	95	14	72-122/30
75-00-3	Chloroethane	ND	1000	1170	117	960	96	20	46-169/30
67-66-3	Chloroform	ND	1000	1140	114	978	98	15	70-141/30
74-87-3	Chloromethane	ND	1000	942	94	788	79	18	33-150/30
95-49-8	o-Chlorotoluene	ND	1000	1880	188* b	1660	166* b	12	59-147/30
106-43-4	p-Chlorotoluene	ND	1000	1390	139* b	1220	122	13	70-130/30
96-12-8	1,2-Dibromo-3-chloropropane	ND	1000	1010	101	918	92	10	47-156/30
124-48-1	Dibromochloromethane	ND	1000	1130	113	1010	101	11	70-130/30
106-93-4	1,2-Dibromoethane	ND	1000	1030	103	916	92	12	65-138/30
95-50-1	1,2-Dichlorobenzene	ND	1000	1040	104	924	92	12	72-123/30
541-73-1	1,3-Dichlorobenzene	ND	1000	1040	104	928	93	11	70-124/30
106-46-7	1,4-Dichlorobenzene	ND	1000	1030	103	920	92	11	70-124/30
75-71-8	Dichlorodifluoromethane	ND	1000	1090	109	909	91	18	10-150/30
75-34-3	1,1-Dichloroethane	ND	1000	1160	116	963	96	19	70-141/30
107-06-2	1,2-Dichloroethane	ND	1000	1080	108	942	94	14	60-153/30
75-35-4	1,1-Dichloroethene	ND	1000	1200	120	1020	102	16	63-134/30
156-59-2	cis-1,2-Dichloroethene	1100	1000	2340	124	1980	88	17	64-130/30
156-60-5	trans-1,2-Dichloroethene	ND	1000	1200	120	1010	101	17	70-130/30
78-87-5	1,2-Dichloropropane	ND	1000	1120	112	976	98	14	73-130/30
142-28-9	1,3-Dichloropropane	ND	1000	1020	102	905	91	12	75-127/30
594-20-7	2,2-Dichloropropane	ND	1000	1080	108	907	91	17	30-150/30
563-58-6	1,1-Dichloropropene	ND	1000	1160	116	999	100	15	73-134/30
10061-01-5	cis-1,3-Dichloropropene	ND	1000	1040	104	901	90	14	58-142/30

# Matrix Spike/Matrix Spike Duplicate Summary

Page 2 of 3

**Job Number:** M81183  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M81180-14MS	N33181.D	20	03/18/09	RT	n/a	n/a	MSN1226
M81180-14MSD	N33182.D	20	03/18/09	RT	n/a	n/a	MSN1226
M81180-14	N33180.D	20	03/18/09	RT	n/a	n/a	MSN1226

The QC reported here applies to the following samples:

Method: SW846 8260B

M81183-11

CAS No.	Compound	M81180-14 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	ND		1000	1000	100	891	89	12	53-143/30
100-41-4	Ethylbenzene	6320		1000	7000	68	6110	-21* a	14	60-138/30
76-13-1	Freon 113	ND		1000	1320	132	1110	111	17	60-149/30
87-68-3	Hexachlorobutadiene	ND		1000	1030	103	936	94	10	54-135/30
591-78-6	2-Hexanone	ND		1000	838	84	742	74	12	32-148/30
98-82-8	Isopropylbenzene	413		1000	1560	115	1370	96	13	70-130/30
99-87-6	p-Isopropyltoluene	66.5		1000	1220	115	1080	101	12	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		1000	1090	109	948	95	14	54-144/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		1000	982	98	894	89	9	53-151/30
74-95-3	Methylene bromide	ND		1000	1050	105	922	92	13	73-136/30
75-09-2	Methylene chloride	ND		1000	1190	119	1010	101	16	64-140/30
91-20-3	Naphthalene	1700		1000	2490	79	2280	58	9	48-143/30
103-65-1	n-Propylbenzene	1300		1000	2280	98	2010	71	13	65-136/30
100-42-5	Styrene	59.9		1000	1240	118	1090	103	13	61-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		1000	1110	111	978	98	13	78-128/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		1000	814	81	735	74	10	60-150/30
127-18-4	Tetrachloroethene	192		1000	1300	111	1120	93	15	70-130/30
109-99-9	Tetrahydrofuran	ND		1000	1290	129	1100	110	16	40-150/30
108-88-3	Toluene	22200	E	1000	22600	40* a	19900	-230* a	13	66-134/30
110-57-6	Trans-1,4-Dichloro-2-Butene	ND		1000	1020	102	899	90	13	20-150/30
87-61-6	1,2,3-Trichlorobenzene	ND		1000	1020	102	949	95	7	57-127/30
120-82-1	1,2,4-Trichlorobenzene	ND		1000	1060	106	967	97	9	57-130/30
71-55-6	1,1,1-Trichloroethane	ND		1000	1230	123	1040	104	17	62-153/30
79-00-5	1,1,2-Trichloroethane	ND		1000	1090	109	968	97	12	77-127/30
79-01-6	Trichloroethene	133		1000	1330	120	1160	103	14	66-132/30
75-69-4	Trichlorofluoromethane	ND		1000	1140	114	947	95	18	48-161/30
96-18-4	1,2,3-Trichloropropane	ND		1000	988	99	897	90	10	61-138/30
95-63-6	1,2,4-Trimethylbenzene	10100	E	1000	9790	-31* a	8670	-143* a	12	54-143/30
108-67-8	1,3,5-Trimethylbenzene	2940		1000	3650	71	3240	30* a	12	62-139/30
75-01-4	Vinyl chloride	ND		1000	1190	119	985	99	19	38-150/30
	m,p-Xylene	20500	E	2000	20700	10* a	18100	-120* a	13	55-142/30
95-47-6	o-Xylene	11800	E	1000	12000	20* a	10400	-140* a	14	65-136/30



## Matrix Spike/Matrix Spike Duplicate Summary

Page 3 of 3

**Job Number:** M81183

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M81180-14MS	N33181.D	20	03/18/09	RT	n/a	n/a	MSN1226
M81180-14MSD	N33182.D	20	03/18/09	RT	n/a	n/a	MSN1226
M81180-14	N33180.D	20	03/18/09	RT	n/a	n/a	MSN1226

The QC reported here applies to the following samples:

Method: SW846 8260B

M81183-11

CAS No.	Surrogate Recoveries	MS	MSD	M81180-14	Limits
1868-53-7	Dibromofluoromethane	104%	99%	103%	79-130%
2037-26-5	Toluene-D8	100%	100%	100%	80-120%
460-00-4	4-Bromofluorobenzene	99%	100%	101%	80-120%

(a) Outside control limits due to high level in sample relative to spike amount.

(b) Outside control limits due to possible matrix interference. Refer to Blank Spike.

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 3

**Job Number:** M81183  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M81205-7MS	G88893.D	1	03/19/09	EL	n/a	n/a	MSG3590
M81205-7MSD	G88894.D	1	03/19/09	EL	n/a	n/a	MSG3590
M81205-7	G88884.D	1	03/19/09	EL	n/a	n/a	MSG3590

The QC reported here applies to the following samples:

Method: SW846 8260B

M81183-13, M81183-15, M81183-16, M81183-18

CAS No.	Compound	M81205-7 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND	50	31.8	64	28.3	57	12	20-150/30
107-13-1	Acrylonitrile	ND	250	295	118	276	110	7	55-150/30
71-43-2	Benzene	ND	50	49.6	99	48.9	98	1	70-130/30
108-86-1	Bromobenzene	ND	50	49.6	99	49.7	99	0	71-121/30
75-27-4	Bromodichloromethane	ND	50	55.8	112	54.7	109	2	64-144/30
75-25-2	Bromoform	ND	50	51.9	104	50.4	101	3	57-133/30
74-83-9	Bromomethane	ND	50	48.3	97	46.5	93	4	40-146/30
78-93-3	2-Butanone (MEK)	ND	50	41.1	82	38.5	77	7	34-150/30
104-51-8	n-Butylbenzene	ND	50	52.2	104	51.5	103	1	61-142/30
135-98-8	sec-Butylbenzene	ND	50	49.9	100	50.1	100	0	70-130/30
98-06-6	tert-Butylbenzene	ND	50	49.7	99	49.2	98	1	70-137/30
75-15-0	Carbon disulfide	ND	50	43.6	87	41.3	83	5	42-151/30
56-23-5	Carbon tetrachloride	ND	50	54.9	110	53.5	107	3	56-158/30
108-90-7	Chlorobenzene	ND	50	49.5	99	48.6	97	2	72-122/30
75-00-3	Chloroethane	ND	50	51.2	102	49.2	98	4	46-169/30
67-66-3	Chloroform	ND	50	51.8	104	49.6	99	4	70-141/30
74-87-3	Chloromethane	ND	50	61.7	123	56.9	114	8	33-150/30
95-49-8	o-Chlorotoluene	ND	50	47.9	96	47.8	96	0	59-147/30
106-43-4	p-Chlorotoluene	ND	50	49.1	98	49.1	98	0	70-130/30
96-12-8	1,2-Dibromo-3-chloropropane	ND	50	47.9	96	47.4	95	1	47-156/30
124-48-1	Dibromochloromethane	ND	50	53.7	107	52.7	105	2	70-130/30
106-93-4	1,2-Dibromoethane	ND	50	52.2	104	51.1	102	2	65-138/30
95-50-1	1,2-Dichlorobenzene	ND	50	51.6	103	51.1	102	1	72-123/30
541-73-1	1,3-Dichlorobenzene	ND	50	51.1	102	50.9	102	0	70-124/30
106-46-7	1,4-Dichlorobenzene	ND	50	49.7	99	49.6	99	0	70-124/30
75-71-8	Dichlorodifluoromethane	ND	50	66.4	133	63.1	126	5	10-150/30
75-34-3	1,1-Dichloroethane	ND	50	52.8	106	50.4	101	5	70-141/30
107-06-2	1,2-Dichloroethane	ND	50	56.2	112	53.6	107	5	60-153/30
75-35-4	1,1-Dichloroethene	ND	50	50.5	101	48.2	96	5	63-134/30
156-59-2	cis-1,2-Dichloroethene	ND	50	49.9	100	48.3	97	3	64-130/30
156-60-5	trans-1,2-Dichloroethene	ND	50	52.7	105	50.5	101	4	70-130/30
78-87-5	1,2-Dichloropropane	ND	50	52.0	104	50.7	101	3	73-130/30
142-28-9	1,3-Dichloropropane	ND	50	51.5	103	50.5	101	2	75-127/30
594-20-7	2,2-Dichloropropane	ND	50	53.7	107	50.6	101	6	30-150/30
563-58-6	1,1-Dichloropropene	ND	50	52.7	105	51.6	103	2	73-134/30
10061-01-5	cis-1,3-Dichloropropene	ND	50	51.3	103	49.8	100	3	58-142/30

# Matrix Spike/Matrix Spike Duplicate Summary

Page 2 of 3

**Job Number:** M81183  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M81205-7MS	G88893.D	1	03/19/09	EL	n/a	n/a	MSG3590
M81205-7MSD	G88894.D	1	03/19/09	EL	n/a	n/a	MSG3590
M81205-7	G88884.D	1	03/19/09	EL	n/a	n/a	MSG3590

The QC reported here applies to the following samples:

Method: SW846 8260B

M81183-13, M81183-15, M81183-16, M81183-18

CAS No.	Compound	M81205-7 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	ND	50	52.6	105	51.9	104	1	53-143/30
100-41-4	Ethylbenzene	ND	50	51.0	102	49.6	99	3	60-138/30
76-13-1	Freon 113	ND	50	56.1	112	53.5	107	5	60-149/30
87-68-3	Hexachlorobutadiene	ND	50	48.2	96	47.7	95	1	54-135/30
591-78-6	2-Hexanone	ND	50	45.1	90	43.6	87	3	32-148/30
98-82-8	Isopropylbenzene	ND	50	49.9	100	50.3	101	1	70-130/30
99-87-6	p-Isopropyltoluene	ND	50	50.4	101	51.0	102	1	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND	50	52.4	105	50.6	101	3	54-144/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	50	61.4	123	59.2	118	4	53-151/30
74-95-3	Methylene bromide	ND	50	52.7	105	50.4	101	4	73-136/30
75-09-2	Methylene chloride	ND	50	53.9	108	51.4	103	5	64-140/30
91-20-3	Naphthalene	ND	50	37.7	75	44.1	88	16	48-143/30
103-65-1	n-Propylbenzene	ND	50	51.4	103	51.1	102	1	65-136/30
100-42-5	Styrene	ND	50	50.7	101	49.3	99	3	61-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND	50	51.6	103	50.6	101	2	78-128/30
79-34-5	1,1,2,2-Tetrachloroethane	ND	50	50.3	101	50.4	101	0	60-150/30
127-18-4	Tetrachloroethene	ND	50	50.8	102	49.7	99	2	70-130/30
109-99-9	Tetrahydrofuran	ND	50	58.5	117	53.8	108	8	40-150/30
108-88-3	Toluene	ND	50	50.8	102	49.7	99	2	66-134/30
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	50	42.4	85	40.0	80	6	20-150/30
87-61-6	1,2,3-Trichlorobenzene	ND	50	38.7	77	39.3	79	2	57-127/30
120-82-1	1,2,4-Trichlorobenzene	ND	50	44.0	88	43.8	88	0	57-130/30
71-55-6	1,1,1-Trichloroethane	ND	50	53.8	108	51.1	102	5	62-153/30
79-00-5	1,1,2-Trichloroethane	ND	50	52.5	105	51.8	104	1	77-127/30
79-01-6	Trichloroethene	ND	50	53.5	107	52.0	104	3	66-132/30
75-69-4	Trichlorofluoromethane	ND	50	51.1	102	48.1	96	6	48-161/30
96-18-4	1,2,3-Trichloropropane	ND	50	50.6	101	50.5	101	0	61-138/30
95-63-6	1,2,4-Trimethylbenzene	ND	50	51.5	103	51.9	104	1	54-143/30
108-67-8	1,3,5-Trimethylbenzene	ND	50	49.6	99	49.8	100	0	62-139/30
75-01-4	Vinyl chloride	ND	50	64.4	129	62.3	125	3	38-150/30
	m,p-Xylene	ND	100	102	102	99.8	100	2	55-142/30
95-47-6	o-Xylene	ND	50	50.9	102	49.7	99	2	65-136/30

## Matrix Spike/Matrix Spike Duplicate Summary

Page 3 of 3

**Job Number:** M81183

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M81205-7MS	G88893.D	1	03/19/09	EL	n/a	n/a	MSG3590
M81205-7MSD	G88894.D	1	03/19/09	EL	n/a	n/a	MSG3590
M81205-7	G88884.D	1	03/19/09	EL	n/a	n/a	MSG3590

The QC reported here applies to the following samples:

Method: SW846 8260B

M81183-13, M81183-15, M81183-16, M81183-18

CAS No.	Surrogate Recoveries	MS	MSD	M81205-7	Limits
1868-53-7	Dibromofluoromethane	104%	102%	103%	79-130%
2037-26-5	Toluene-D8	100%	101%	100%	80-120%
460-00-4	4-Bromofluorobenzene	95%	96%	116%	80-120%

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 3

**Job Number:** M81183  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M81235-6MS	N33222.D	25	03/19/09	RT	n/a	n/a	MSN1227
M81235-6MSD	N33223.D	25	03/19/09	RT	n/a	n/a	MSN1227
M81235-6	N33221.D	25	03/19/09	RT	n/a	n/a	MSN1227

The QC reported here applies to the following samples:

Method: SW846 8260B

M81183-5, M81183-7, M81183-9

CAS No.	Compound	M81235-6 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND	1250	1020	82	936	75	9	20-150/30
107-13-1	Acrylonitrile	ND	6250	4430	71	4210	67	5	55-150/30
71-43-2	Benzene	25.9	1250	1510	119	1380	108	9	70-130/30
108-86-1	Bromobenzene	ND	1250	1350	108	1290	103	5	71-121/30
75-27-4	Bromodichloromethane	ND	1250	1500	120	1410	113	6	64-144/30
75-25-2	Bromoform	ND	1250	879	70	848	68	4	57-133/30
74-83-9	Bromomethane	ND	1250	1410	113	1430	114	1	40-146/30
78-93-3	2-Butanone (MEK)	ND	1250	634	51	613	49	3	34-150/30
104-51-8	n-Butylbenzene	13.0	1250	1380	109	1280	101	8	61-142/30
135-98-8	sec-Butylbenzene	ND	1250	1490	119	1370	110	8	70-130/30
98-06-6	tert-Butylbenzene	ND	1250	1530	122	1400	112	9	70-137/30
75-15-0	Carbon disulfide	ND	1250	1630	130	1480	118	10	42-151/30
56-23-5	Carbon tetrachloride	ND	1250	1540	123	1410	113	9	56-158/30
108-90-7	Chlorobenzene	ND	1250	1380	110	1260	101	9	72-122/30
75-00-3	Chloroethane	ND	1250	1570	126	1400	112	11	46-169/30
67-66-3	Chloroform	ND	1250	1500	120	1360	109	10	70-141/30
74-87-3	Chloromethane	ND	1250	1530	122	1330	106	14	33-150/30
95-49-8	o-Chlorotoluene	ND	1250	1510	121	1420	114	6	59-147/30
106-43-4	p-Chlorotoluene	ND	1250	1450	116	1370	110	6	70-130/30
96-12-8	1,2-Dibromo-3-chloropropane	ND	1250	683	55	676	54	1	47-156/30
124-48-1	Dibromochloromethane	ND	1250	1300	104	1200	96	8	70-130/30
106-93-4	1,2-Dibromoethane	ND	1250	1050	84	1000	80	5	65-138/30
95-50-1	1,2-Dichlorobenzene	ND	1250	1270	102	1220	98	4	72-123/30
541-73-1	1,3-Dichlorobenzene	ND	1250	1320	106	1260	101	5	70-124/30
106-46-7	1,4-Dichlorobenzene	ND	1250	1300	104	1240	99	5	70-124/30
75-71-8	Dichlorodifluoromethane	ND	1250	1470	118	1290	103	13	10-150/30
75-34-3	1,1-Dichloroethane	ND	1250	1500	120	1370	110	9	70-141/30
107-06-2	1,2-Dichloroethane	ND	1250	1290	103	1220	98	6	60-153/30
75-35-4	1,1-Dichloroethene	ND	1250	1550	124	1390	111	11	63-134/30
156-59-2	cis-1,2-Dichloroethene	ND	1250	1490	119	1360	109	9	64-130/30
156-60-5	trans-1,2-Dichloroethene	ND	1250	1540	123	1390	111	10	70-130/30
78-87-5	1,2-Dichloropropane	ND	1250	1430	114	1310	105	9	73-130/30
142-28-9	1,3-Dichloropropane	ND	1250	1180	94	1100	88	7	75-127/30
594-20-7	2,2-Dichloropropane	ND	1250	1270	102	1140	91	11	30-150/30
563-58-6	1,1-Dichloropropene	ND	1250	1470	118	1350	108	9	73-134/30
10061-01-5	cis-1,3-Dichloropropene	ND	1250	1270	102	1180	94	7	58-142/30

# Matrix Spike/Matrix Spike Duplicate Summary

Page 2 of 3

**Job Number:** M81183  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M81235-6MS	N33222.D	25	03/19/09	RT	n/a	n/a	MSN1227
M81235-6MSD	N33223.D	25	03/19/09	RT	n/a	n/a	MSN1227
M81235-6	N33221.D	25	03/19/09	RT	n/a	n/a	MSN1227

The QC reported here applies to the following samples:

Method: SW846 8260B

M81183-5, M81183-7, M81183-9

CAS No.	Compound	M81235-6 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	ND	1250	1140	91	1070	86	6	53-143/30
100-41-4	Ethylbenzene	241	1250	1660	114	1520	102	9	60-138/30
76-13-1	Freon 113	ND	1250	1700	136	1510	121	12	60-149/30
87-68-3	Hexachlorobutadiene	ND	1250	1150	92	1080	86	6	54-135/30
591-78-6	2-Hexanone	ND	1250	568	45	564	45	1	32-148/30
98-82-8	Isopropylbenzene	14.1	1250	1580	125	1480	117	7	70-130/30
99-87-6	p-Isopropyltoluene	ND	1250	1440	115	1330	106	8	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND	1250	1090	87	1020	82	7	54-144/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	1250	723	58	695	56	4	53-151/30
74-95-3	Methylene bromide	ND	1250	1210	97	1140	91	6	73-136/30
75-09-2	Methylene chloride	ND	1250	1560	125	1420	114	9	64-140/30
91-20-3	Naphthalene	88.5	1250	828	59	849	61	3	48-143/30
103-65-1	n-Propylbenzene	27.9	1250	1550	122	1450	114	7	65-136/30
100-42-5	Styrene	ND	1250	1430	114	1310	105	9	61-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND	1250	1390	111	1290	103	7	78-128/30
79-34-5	1,1,2,2-Tetrachloroethane	ND	1250	914	73	889	71	3	60-150/30
127-18-4	Tetrachloroethene	ND	1250	1360	109	1260	101	8	70-130/30
109-99-9	Tetrahydrofuran	ND	1250	871	70	811	65	7	40-150/30
108-88-3	Toluene	985	1250	2440	116	2250	101	8	66-134/30
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	1250	771	62	751	60	3	20-150/30
87-61-6	1,2,3-Trichlorobenzene	ND	1250	969	78	977	78	1	57-127/30
120-82-1	1,2,4-Trichlorobenzene	ND	1250	1110	89	1090	87	2	57-130/30
71-55-6	1,1,1-Trichloroethane	ND	1250	1600	128	1450	116	10	62-153/30
79-00-5	1,1,2-Trichloroethane	ND	1250	1190	95	1120	90	6	77-127/30
79-01-6	Trichloroethene	ND	1250	1510	121	1380	110	9	66-132/30
75-69-4	Trichlorofluoromethane	ND	1250	1470	118	1310	105	12	48-161/30
96-18-4	1,2,3-Trichloropropane	ND	1250	878	70	860	69	2	61-138/30
95-63-6	1,2,4-Trimethylbenzene	382	1250	1840	117	1700	105	8	54-143/30
108-67-8	1,3,5-Trimethylbenzene	114	1250	1600	119	1500	111	6	62-139/30
75-01-4	Vinyl chloride	ND	1250	1990	159* a	1740	139	13	38-150/30
	m,p-Xylene	1510	2500	4340	113	3960	98	9	55-142/30
95-47-6	o-Xylene	721	1250	2160	115	1970	100	9	65-136/30

## Matrix Spike/Matrix Spike Duplicate Summary

Page 3 of 3

**Job Number:** M81183

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M81235-6MS	N33222.D	25	03/19/09	RT	n/a	n/a	MSN1227
M81235-6MSD	N33223.D	25	03/19/09	RT	n/a	n/a	MSN1227
M81235-6	N33221.D	25	03/19/09	RT	n/a	n/a	MSN1227

The QC reported here applies to the following samples:

Method: SW846 8260B

M81183-5, M81183-7, M81183-9

CAS No.	Surrogate Recoveries	MS	MSD	M81235-6	Limits
1868-53-7	Dibromofluoromethane	105%	103%	101%	79-130%
2037-26-5	Toluene-D8	100%	101%	99%	80-120%
460-00-4	4-Bromofluorobenzene	102%	104%	107%	80-120%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.



# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 3

**Job Number:** M81183  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M81235-6MS	N33241.D	5	03/20/09	RT	n/a	n/a	MSN1228
M81235-6MSD	N33242.D	5	03/20/09	RT	n/a	n/a	MSN1228
M81235-6	N33240.D	5	03/20/09	RT	n/a	n/a	MSN1228

The QC reported here applies to the following samples:

Method: SW846 8260B

M81183-20

CAS No.	Compound	M81235-6 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND	250	388	155* a	329	132	16	20-150/30
107-13-1	Acrylonitrile	ND	1250	1270	102	1140	91	11	55-150/30
71-43-2	Benzene	14.7	250	304	116	264	100	14	70-130/30
108-86-1	Bromobenzene	ND	250	263	105	230	92	13	71-121/30
75-27-4	Bromodichloromethane	ND	250	301	120	264	106	13	64-144/30
75-25-2	Bromoform	ND	250	215	86	199	80	8	57-133/30
74-83-9	Bromomethane	ND	250	272	109	246	98	10	40-146/30
78-93-3	2-Butanone (MEK)	ND	250	218	87	183	73	17	34-150/30
104-51-8	n-Butylbenzene	10.2	250	287	111	243	93	17	61-142/30
135-98-8	sec-Butylbenzene	ND	250	295	118	253	101	15	70-130/30
98-06-6	tert-Butylbenzene	ND	250	298	119	255	102	16	70-137/30
75-15-0	Carbon disulfide	ND	250	318	127	272	109	16	42-151/30
56-23-5	Carbon tetrachloride	ND	250	302	121	261	104	15	56-158/30
108-90-7	Chlorobenzene	ND	250	263	105	230	92	13	72-122/30
75-00-3	Chloroethane	ND	250	297	119	245	98	19	46-169/30
67-66-3	Chloroform	ND	250	291	116	250	100	15	70-141/30
74-87-3	Chloromethane	ND	250	233	93	202	81	14	33-150/30
95-49-8	o-Chlorotoluene	ND	250	317	127	270	108	16	59-147/30
106-43-4	p-Chlorotoluene	ND	250	286	114	249	100	14	70-130/30
96-12-8	1,2-Dibromo-3-chloropropane	ND	250	226	90	204	82	10	47-156/30
124-48-1	Dibromochloromethane	ND	250	276	110	248	99	11	70-130/30
106-93-4	1,2-Dibromoethane	ND	250	249	100	221	88	12	65-138/30
95-50-1	1,2-Dichlorobenzene	ND	250	262	105	226	90	15	72-123/30
541-73-1	1,3-Dichlorobenzene	ND	250	260	104	227	91	14	70-124/30
106-46-7	1,4-Dichlorobenzene	ND	250	260	104	223	89	15	70-124/30
75-71-8	Dichlorodifluoromethane	ND	250	273	109	231	92	17	10-150/30
75-34-3	1,1-Dichloroethane	ND	250	291	116	247	99	16	70-141/30
107-06-2	1,2-Dichloroethane	ND	250	275	110	237	95	15	60-153/30
75-35-4	1,1-Dichloroethene	ND	250	300	120	255	102	16	63-134/30
156-59-2	cis-1,2-Dichloroethene	ND	250	292	117	246	98	17	64-130/30
156-60-5	trans-1,2-Dichloroethene	ND	250	299	120	256	102	15	70-130/30
78-87-5	1,2-Dichloropropane	ND	250	280	112	242	97	15	73-130/30
142-28-9	1,3-Dichloropropane	ND	250	255	102	223	89	13	75-127/30
594-20-7	2,2-Dichloropropane	ND	250	259	104	222	89	15	30-150/30
563-58-6	1,1-Dichloropropene	ND	250	289	116	251	100	14	73-134/30
10061-01-5	cis-1,3-Dichloropropene	ND	250	259	104	223	89	15	58-142/30

# Matrix Spike/Matrix Spike Duplicate Summary

Page 2 of 3

**Job Number:** M81183  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M81235-6MS	N33241.D	5	03/20/09	RT	n/a	n/a	MSN1228
M81235-6MSD	N33242.D	5	03/20/09	RT	n/a	n/a	MSN1228
M81235-6	N33240.D	5	03/20/09	RT	n/a	n/a	MSN1228

The QC reported here applies to the following samples:

Method: SW846 8260B

M81183-20

CAS No.	Compound	M81235-6 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	ND	250	247	99	218	87	12	53-143/30
100-41-4	Ethylbenzene	178	250	453	110	397	88	13	60-138/30
76-13-1	Freon 113	ND	250	327	131	278	111	16	60-149/30
87-68-3	Hexachlorobutadiene	ND	250	254	102	219	88	15	54-135/30
591-78-6	2-Hexanone	ND	250	204	82	190	76	7	32-148/30
98-82-8	Isopropylbenzene	7.9	250	306	119	265	103	14	70-130/30
99-87-6	p-Isopropyltoluene	ND	250	290	116	247	99	16	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND	250	275	110	242	97	13	54-144/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	250	247	99	223	89	10	53-151/30
74-95-3	Methylene bromide	ND	250	261	104	229	92	13	73-136/30
75-09-2	Methylene chloride	ND	250	298	119	255	102	16	64-140/30
91-20-3	Naphthalene	33.6	250	267	93	240	83	11	48-143/30
103-65-1	n-Propylbenzene	16.0	250	316	120	270	102	16	65-136/30
100-42-5	Styrene	ND	250	280	112	246	98	13	61-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND	250	267	107	234	94	13	78-128/30
79-34-5	1,1,2,2-Tetrachloroethane	ND	250	252	101	221	88	13	60-150/30
127-18-4	Tetrachloroethene	ND	250	261	104	228	91	13	70-130/30
109-99-9	Tetrahydrofuran	ND	250	300	120	265	106	12	40-150/30
108-88-3	Toluene	780	250	1110	132	957	71	15	66-134/30
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	250	244	98	220	88	10	20-150/30
87-61-6	1,2,3-Trichlorobenzene	ND	250	244	98	218	87	11	57-127/30
120-82-1	1,2,4-Trichlorobenzene	ND	250	247	99	219	88	12	57-130/30
71-55-6	1,1,1-Trichloroethane	ND	250	308	123	262	105	16	62-153/30
79-00-5	1,1,2-Trichloroethane	ND	250	270	108	240	96	12	77-127/30
79-01-6	Trichloroethene	ND	250	292	117	247	99	17	66-132/30
75-69-4	Trichlorofluoromethane	ND	250	281	112	241	96	15	48-161/30
96-18-4	1,2,3-Trichloropropane	ND	250	250	100	222	89	12	61-138/30
95-63-6	1,2,4-Trimethylbenzene	277	250	590	125	504	91	16	54-143/30
108-67-8	1,3,5-Trimethylbenzene	92.4	250	386	117	334	97	14	62-139/30
75-01-4	Vinyl chloride	ND	250	304	122	256	102	17	38-150/30
	m,p-Xylene	1200	500	1750	110	1520	64	14	55-142/30
95-47-6	o-Xylene	600	250	898	119	779	72	14	65-136/30

## Matrix Spike/Matrix Spike Duplicate Summary

Page 3 of 3

**Job Number:** M81183

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M81235-6MS	N33241.D	5	03/20/09	RT	n/a	n/a	MSN1228
M81235-6MSD	N33242.D	5	03/20/09	RT	n/a	n/a	MSN1228
M81235-6	N33240.D	5	03/20/09	RT	n/a	n/a	MSN1228

The QC reported here applies to the following samples:

Method: SW846 8260B

M81183-20

CAS No.	Surrogate Recoveries	MS	MSD	M81235-6	Limits
1868-53-7	Dibromofluoromethane	104%	104%	104%	79-130%
2037-26-5	Toluene-D8	101%	101%	100%	80-120%
460-00-4	4-Bromofluorobenzene	102%	103%	103%	80-120%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

# Volatile Internal Standard Area Summary

Page 1 of 1

**Job Number:** M81183  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Check Std:** MSG3590-CC3531      **Injection Date:** 03/19/09  
**Lab File ID:** G88870.D      **Injection Time:** 10:04  
**Instrument ID:** GCMSG      **Method:** SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	192832	9.05	281591	9.92	151959	13.17	122674	15.73	69052	6.65
Upper Limit <sup>a</sup>	385664	9.55	563182	10.42	303918	13.67	245348	16.23	138104	7.15
Lower Limit <sup>b</sup>	96416	8.55	140796	9.42	75980	12.67	61337	15.23	34526	6.15

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSG3590-BS	192832	9.05	281591	9.92	151959	13.17	122674	15.73	69052	6.65
MSG3590-BSD	189155	9.05	273815	9.92	147270	13.17	120681	15.73	70872	6.65
MSG3590-MB	190472	9.06	276830	9.92	138823	13.18	95634	15.73	66516	6.67
M81183-13	185956	9.05	271158	9.92	136319	13.17	88248	15.74	54904	6.67
M81183-15	183761	9.05	268402	9.92	134495	13.18	86051	15.74	58361	6.66
M81183-16	182142	9.05	270349	9.92	136439	13.18	86914	15.74	59435	6.67
M81183-18	176675	9.05	257467	9.92	129169	13.18	81260	15.74	60622	6.67
ZZZZZZ	177942	9.05	260005	9.92	130876	13.18	82858	15.74	63444	6.67
ZZZZZZ	175520	9.05	258282	9.92	128714	13.17	82037	15.74	62435	6.67
ZZZZZZ	175322	9.06	256657	9.92	129729	13.18	82182	15.74	62581	6.67
ZZZZZZ	173656	9.05	256470	9.93	129871	13.18	83045	15.73	62095	6.67
ZZZZZZ	173626	9.05	256455	9.92	129655	13.17	80856	15.74	62919	6.68
ZZZZZZ	169369	9.05	251590	9.92	126371	13.17	78168	15.74	63887	6.67
M81205-7	167672	9.05	247808	9.93	124179	13.18	77785	15.74	63353	6.67
ZZZZZZ	167258	9.06	249235	9.92	129168	13.18	88057	15.74	72278	6.66
ZZZZZZ	173217	9.06	252857	9.92	130432	13.17	99076	15.73	72027	6.67
ZZZZZZ	179699	9.05	263011	9.93	132492	13.18	84999	15.74	66553	6.67
ZZZZZZ	178955	9.05	263422	9.92	132141	13.17	84017	15.74	65552	6.67
ZZZZZZ	176748	9.05	261960	9.92	132047	13.17	83388	15.74	65971	6.67
ZZZZZZ	176258	9.05	262937	9.92	131581	13.17	81026	15.74	65980	6.67
ZZZZZZ	172645	9.05	255148	9.92	128443	13.18	81234	15.74	64336	6.67
ZZZZZZ	173421	9.05	255847	9.92	126701	13.18	82242	15.74	63220	6.67
M81205-7MS	171769	9.05	255857	9.92	139213	13.17	118039	15.73	63437	6.66
M81205-7MSD	177350	9.05	258254	9.92	139871	13.17	114101	15.73	59537	6.65

**IS 1** = Pentafluorobenzene  
**IS 2** = 1,4-Difluorobenzene  
**IS 3** = Chlorobenzene-D5  
**IS 4** = 1,4-Dichlorobenzene-d4  
**IS 5** = Tert Butyl Alcohol-D9

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

# Volatile Internal Standard Area Summary

Page 1 of 1

**Job Number:** M81183  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Check Std:** MSN1225-CC1202  
**Lab File ID:** N33140.D  
**Instrument ID:** GCMSN  
**Injection Date:** 03/17/09  
**Injection Time:** 13:40  
**Method:** SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	301953	8.64	492046	9.50	259760	12.76	226853	15.31	126950	6.22
Upper Limit <sup>a</sup>	603906	9.14	984092	10.00	519520	13.26	453706	15.81	253900	6.72
Lower Limit <sup>b</sup>	150977	8.14	246023	9.00	129880	12.26	113427	14.81	63475	5.72

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSN1225-BS	301953	8.64	492046	9.50	259760	12.76	226853	15.31	126950	6.22
MSN1225-BSD	268128	8.64	444065	9.51	233969	12.75	203490	15.32	124976	6.22
MSN1225-MB	310673	8.64	507037	9.50	258290	12.75	220258	15.32	140637	6.22
ZZZZZZ	304014	8.64	500606	9.50	256964	12.75	221570	15.31	129349	6.22
ZZZZZZ	263975	8.64	436215	9.51	225293	12.75	191319	15.32	111742	6.22
ZZZZZZ	290687	8.64	473313	9.51	244488	12.75	204252	15.32	124628	6.22
ZZZZZZ	245808	8.64	411176	9.51	211622	12.76	177499	15.32	106786	6.22
ZZZZZZ	297213	8.64	488152	9.50	255269	12.76	228891	15.31	126546	6.22
ZZZZZZ	253567	8.64	415168	9.51	217757	12.76	199453	15.32	114825	6.22
ZZZZZZ	304742	8.64	492782	9.51	253710	12.76	229026	15.31	123652	6.22
ZZZZZZ	267259	8.64	438771	9.50	226486	12.75	190282	15.32	117905	6.22
M81183-1	260803	8.64	431778	9.51	222271	12.75	184360	15.32	113114	6.22
M81183-3	244260	8.64	412010	9.51	210661	12.76	175545	15.31	109953	6.22
ZZZZZZ	250156	8.64	414397	9.50	215331	12.75	193555	15.31	103373	6.22
ZZZZZZ	294256	8.64	487018	9.50	251716	12.76	213453	15.31	82959	6.22
ZZZZZZ	251922	8.64	424324	9.50	220983	12.76	195034	15.31	88414	6.22
ZZZZZZ	254666	8.64	426763	9.50	216876	12.76	186007	15.31	56927*	6.22
M81180-15	300573	8.64	496576	9.50	255592	12.75	220528	15.31	59143*	6.22
M81180-15MS	314487	8.64	519351	9.50	274429	12.76	239223	15.31	57260*	6.22
M81180-15MSD	297317	8.64	486952	9.50	256408	12.75	221347	15.31	52592*	6.22

**IS 1** = Pentafluorobenzene  
**IS 2** = 1,4-Difluorobenzene  
**IS 3** = Chlorobenzene-D5  
**IS 4** = 1,4-Dichlorobenzene-d4  
**IS 5** = Tert Butyl Alcohol-D9

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

# Volatile Internal Standard Area Summary

Page 1 of 1

**Job Number:** M81183  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Check Std:** MSN1226-CC1202  
**Lab File ID:** N33174.D  
**Instrument ID:** GCMSN  
**Injection Date:** 03/18/09  
**Injection Time:** 13:40  
**Method:** SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	292328	8.64	479093	9.51	251636	12.75	221595	15.31	133042	6.22
Upper Limit <sup>a</sup>	584656	9.14	958186	10.01	503272	13.25	443190	15.81	266084	6.72
Lower Limit <sup>b</sup>	146164	8.14	239547	9.01	125818	12.25	110798	14.81	66521	5.72

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSN1226-BS	292328	8.64	479093	9.51	251636	12.75	221595	15.31	133042	6.22
MSN1226-BSD	319539	8.64	524620	9.51	273591	12.75	243927	15.32	137632	6.22
MSN1226-MB	270991	8.64	449329	9.51	229549	12.75	196072	15.32	114767	6.22
ZZZZZZ	299708	8.64	495930	9.51	253538	12.75	217452	15.32	140650	6.22
ZZZZZZ	261322	8.64	427430	9.51	222906	12.76	191572	15.32	115565	6.22
M81180-14	272189	8.64	450583	9.51	237370	12.75	219223	15.32	116211	6.22
M81180-14MS	273054	8.64	452799	9.51	244009	12.75	220553	15.32	123420	6.22
M81180-14MSD	317745	8.64	513947	9.51	275585	12.76	247068	15.32	136252	6.22
ZZZZZZ	287418	8.65	478517	9.51	240090	12.75	218943	15.32	158274	6.22
ZZZZZZ	278030	8.64	452653	9.51	230858	12.76	212576	15.32	130980	6.22
M81183-11	307064	8.64	500733	9.51	253525	12.75	220670	15.32	138737	6.22
ZZZZZZ	286528	8.64	468652	9.51	240556	12.76	215610	15.31	99819	6.22
ZZZZZZ	285853	8.64	469894	9.51	238481	12.75	202994	15.32	95067	6.22
ZZZZZZ	302577	8.64	500156	9.50	254370	12.76	214003	15.31	95997	6.22
ZZZZZZ	258984	8.64	426685	9.51	222440	12.75	197981	15.31	76454	6.22
ZZZZZZ	316425	8.64	513239	9.50	263692	12.75	232952	15.31	85507	6.22
ZZZZZZ	308022	8.64	501643	9.50	255726	12.76	214125	15.32	90679	6.22
ZZZZZZ	251291	8.64	419013	9.50	215192	12.76	178998	15.31	68439	6.22

**IS 1** = Pentafluorobenzene  
**IS 2** = 1,4-Difluorobenzene  
**IS 3** = Chlorobenzene-D5  
**IS 4** = 1,4-Dichlorobenzene-d4  
**IS 5** = Tert Butyl Alcohol-D9

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

# Volatile Internal Standard Area Summary

Page 1 of 1

**Job Number:** M81183  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Check Std:** MSN1227-CC1202  
**Lab File ID:** N33202.D  
**Instrument ID:** GCMSN  
**Injection Date:** 03/19/09  
**Injection Time:** 13:52  
**Method:** SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	305347	8.65	494988	9.51	260199	12.76	227999	15.31	148444	6.22
Upper Limit <sup>a</sup>	610694	9.15	989976	10.01	520398	13.26	455998	15.81	296888	6.72
Lower Limit <sup>b</sup>	152674	8.15	247494	9.01	130100	12.26	114000	14.81	74222	5.72

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSN1227-BS	305347	8.65	494988	9.51	260199	12.76	227999	15.31	148444	6.22
MSN1227-BSD	302317	8.64	496363	9.51	262504	12.76	230066	15.32	136482	6.22
MSN1227-MB	272059	8.64	448972	9.51	229997	12.75	193176	15.32	126085	6.22
M81183-5	286543	8.64	472024	9.51	242413	12.76	204512	15.32	131819	6.22
M81183-7	233097	8.64	390842	9.50	201655	12.75	166559	15.32	105004	6.22
M81183-9	231004	8.64	385128	9.51	199532	12.75	164781	15.32	118512	6.22
ZZZZZZ	230837	8.65	387778	9.51	201258	12.76	168189	15.32	113043	6.22
ZZZZZZ	273526	8.65	459109	9.50	239984	12.75	208771	15.31	132583	6.22
ZZZZZZ	280377	8.64	464751	9.51	241298	12.75	212932	15.32	137947	6.22
ZZZZZZ	301039	8.64	501980	9.51	273171	12.76	257995	15.32	172375	6.22
ZZZZZZ	315126	8.64	510626	9.51	261555	12.76	227897	15.31	149789	6.22
ZZZZZZ	292215	8.64	482289	9.50	249188	12.75	221927	15.31	56682*	6.22
M81235-6	254782	8.64	420161	9.51	212818	12.76	176210	15.31	45130*	6.22
M81235-6MS	254109	8.64	428315	9.50	226899	12.76	194065	15.31	46565*	6.22
M81235-6MSD	273467	8.64	455366	9.50	242618	12.76	201645	15.31	50753*	6.22

**IS 1** = Pentafluorobenzene  
**IS 2** = 1,4-Difluorobenzene  
**IS 3** = Chlorobenzene-D5  
**IS 4** = 1,4-Dichlorobenzene-d4  
**IS 5** = Tert Butyl Alcohol-D9

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.



# Volatile Internal Standard Area Summary

Page 1 of 1

**Job Number:** M81183  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Check Std:** MSN1228-CC1202  
**Lab File ID:** N33228.D  
**Instrument ID:** GCMSN  
**Injection Date:** 03/20/09  
**Injection Time:** 11:20  
**Method:** SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	281770	8.64	460168	9.51	252305	12.75	218341	15.31	121489	6.22
Upper Limit <sup>a</sup>	563540	9.14	920336	10.01	504610	13.25	436682	15.81	242978	6.72
Lower Limit <sup>b</sup>	140885	8.14	230084	9.01	126153	12.25	109171	14.81	60745	5.72

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSN1228-BS	262537	8.64	435715	9.50	232613	12.76	201077	15.31	123772	6.22
MSN1228-BSD	257911	8.64	427655	9.51	227285	12.76	194806	15.32	123497	6.22
MSN1228-MB	281941	8.64	475577	9.51	243257	12.76	203917	15.32	123360	6.22
M81183-20	238422	8.64	398425	9.51	204985	12.75	171471	15.32	106330	6.22
ZZZZZZ	238326	8.64	400599	9.51	207950	12.75	182925	15.31	104185	6.22
ZZZZZZ	282982	8.64	472765	9.51	241865	12.75	205054	15.32	124656	6.22
ZZZZZZ	233920	8.64	390199	9.51	201263	12.76	167605	15.31	107372	6.22
ZZZZZZ	234933	8.64	395381	9.51	203144	12.75	170049	15.32	116220	6.22
ZZZZZZ	232849	8.64	395691	9.51	205439	12.75	170847	15.32	112879	6.22
ZZZZZZ	244851	8.64	410566	9.51	214645	12.76	188164	15.31	120201	6.22
M81235-6	282451	8.64	466894	9.51	242026	12.76	212243	15.31	134097	6.22
M81235-6MS	253915	8.64	422668	9.51	227391	12.75	196203	15.31	118758	6.22
M81235-6MSD	294949	8.64	484913	9.50	259521	12.75	225964	15.31	134136	6.22
ZZZZZZ	291045	8.64	478582	9.50	246375	12.75	206593	15.32	141591	6.22
ZZZZZZ	236001	8.64	397443	9.51	202958	12.76	165861	15.32	116862	6.22
ZZZZZZ	238270	8.64	396195	9.51	204083	12.75	168333	15.32	112300	6.22
ZZZZZZ	232295	8.64	391384	9.51	204847	12.75	175440	15.32	109828	6.22
ZZZZZZ	278263	8.64	463672	9.51	238736	12.76	198470	15.31	121813	6.22
ZZZZZZ	242922	8.64	407341	9.51	211989	12.76	180924	15.32	104259	6.22
ZZZZZZ	231977	8.64	393657	9.51	204807	12.75	161788	15.32	96678	6.22

**IS 1** = Pentafluorobenzene  
**IS 2** = 1,4-Difluorobenzene  
**IS 3** = Chlorobenzene-D5  
**IS 4** = 1,4-Dichlorobenzene-d4  
**IS 5** = Tert Butyl Alcohol-D9

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

# Volatile Surrogate Recovery Summary

Page 1 of 2

**Job Number:** M81183  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Method:** SW846 8260B

**Matrix:** AQ

**Samples and QC shown here apply to the above method**

Lab Sample ID	Lab File ID	S1	S2	S3
M81183-1	N33153.D	103.0	98.0	106.0
M81183-3	N33154.D	103.0	99.0	106.0
M81183-5	N33206.D	102.0	100.0	104.0
M81183-7	N33207.D	104.0	100.0	106.0
M81183-9	N33208.D	104.0	99.0	106.0
M81183-11	N33188.D	100.0	99.0	105.0
M81183-13	G88874.D	103.0	99.0	113.0
M81183-15	G88875.D	102.0	99.0	115.0
M81183-16	G88876.D	105.0	100.0	114.0
M81183-18	G88877.D	102.0	96.0	114.0
M81183-20	N33233.D	104.0	100.0	106.0
M81180-14MS	N33181.D	104.0	100.0	99.0
M81180-14MSD	N33182.D	99.0	100.0	100.0
M81180-15MS	N33160.D	102.0	100.0	101.0
M81180-15MSD	N33161.D	102.0	101.0	102.0
M81205-7MS	G88893.D	104.0	100.0	95.0
M81205-7MSD	G88894.D	102.0	101.0	96.0
M81235-6MS	N33222.D	105.0	100.0	102.0
M81235-6MS	N33241.D	104.0	101.0	102.0
M81235-6MSD	N33223.D	103.0	101.0	104.0
M81235-6MSD	N33242.D	104.0	101.0	103.0
MSG3590-BS	G88870A.D	102.0	101.0	99.0
MSG3590-BSD	G88871.D	101.0	101.0	97.0
MSG3590-MB	G88873.D	101.0	99.0	110.0
MSN1225-BS	N33140.D	101.0	100.0	101.0
MSN1225-BSD	N33141.D	103.0	100.0	102.0
MSN1225-MB	N33143.D	100.0	99.0	105.0
MSN1226-BS	N33174.D	102.0	100.0	101.0
MSN1226-BSD	N33175.D	101.0	100.0	100.0
MSN1226-MB	N33177.D	103.0	98.0	103.0
MSN1227-BS	N33202.D	101.0	100.0	101.0
MSN1227-BSD	N33203.D	102.0	100.0	101.0
MSN1227-MB	N33205.D	102.0	99.0	105.0
MSN1228-BS	N33229.D	105.0	100.0	102.0
MSN1228-BSD	N33230.D	104.0	101.0	104.0
MSN1228-MB	N33232.D	104.0	99.0	106.0

**Surrogate  
Compounds**

**Recovery  
Limits**

**Volatile Surrogate Recovery Summary**

**Job Number:** M81183  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

<b>Method:</b> SW846 8260B	<b>Matrix:</b> AQ
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Samples and QC shown here apply to the above method

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	79-130%
S2 = Toluene-D8	80-120%
S3 = 4-Bromofluorobenzene	80-120%

5.5.1  
5



## GC Semi-volatiles

### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries

## Method Blank Summary

Page 1 of 1

**Job Number:** M81183

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP18047-MB	BC25801D.D1		03/17/09	DG	03/11/09	OP18047	GBC1422

The QC reported here applies to the following samples:

Method: CT-ETPH

M81183-1, M81183-3, M81183-5, M81183-7, M81183-9, M81183-11, M81183-13, M81183-16, M81183-18, M81183-20

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	ND	0.080	mg/l	

CAS No.	Surrogate Recoveries	Limits
3386-33-2	1-Chlorooctadecane	72% 50-149%

## Method Blank Summary

Page 1 of 1

**Job Number:** M81183

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP18048-MB	BE15056.D	1	03/13/09	SL	03/11/09	OP18048	GBE1057

The QC reported here applies to the following samples:

Method: SW846 8082

M81183-1, M81183-3, M81183-5, M81183-7, M81183-9, M81183-11, M81183-13, M81183-16, M81183-18, M81183-20

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	ug/l	

CAS No.	Surrogate Recoveries	Limits
877-09-8	Tetrachloro-m-xylene	109% 32-149%
877-09-8	Tetrachloro-m-xylene	116% 32-149%
2051-24-3	Decachlorobiphenyl	85% 30-150%
2051-24-3	Decachlorobiphenyl	76% 30-150%

## Blank Spike Summary

Page 1 of 1

**Job Number:** M81183

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP18047-BS	BC25802A.D1		03/17/09	DG	03/11/09	OP18047	GBC1422

The QC reported here applies to the following samples:

Method: CT-ETPH

M81183-1, M81183-3, M81183-5, M81183-7, M81183-9, M81183-11, M81183-13, M81183-16, M81183-18, M81183-20

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	CT-DRO (C9-C36)	0.7	0.552	79	60-120

CAS No.	Surrogate Recoveries	BSP	Limits
3386-33-2	1-Chlorooctadecane	79%	50-149%



## Blank Spike Summary

Page 1 of 1

**Job Number:** M81183

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP18048-BS	BE15057.D	1	03/13/09	SL	03/11/09	OP18048	GBE1057

The QC reported here applies to the following samples:

Method: SW846 8082

M81183-1, M81183-3, M81183-5, M81183-7, M81183-9, M81183-11, M81183-13, M81183-16, M81183-18, M81183-20

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
12674-11-2	Aroclor 1016	2	2.2	110	55-140
11104-28-2	Aroclor 1221		ND		40-140
11141-16-5	Aroclor 1232		ND		40-140
53469-21-9	Aroclor 1242		ND		40-140
12672-29-6	Aroclor 1248		ND		40-140
11097-69-1	Aroclor 1254		ND		40-140
11096-82-5	Aroclor 1260	2	2.2	110	61-140
37324-23-5	Aroclor 1262		ND		40-140
11100-14-4	Aroclor 1268		ND		40-140

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	113%	32-149%
877-09-8	Tetrachloro-m-xylene	120%	32-149%
2051-24-3	Decachlorobiphenyl	92%	30-150%
2051-24-3	Decachlorobiphenyl	82%	30-150%

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

**Job Number:** M81183

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP18047-MS	BC25803A.D1		03/17/09	DG	03/11/09	OP18047	GBC1422
OP18047-MSD	BC25804A.D1		03/17/09	DG	03/11/09	OP18047	GBC1422
M81179-6	BC25805A.D1		03/17/09	DG	03/11/09	OP18047	GBC1422

The QC reported here applies to the following samples:

Method: CT-ETPH

M81183-1, M81183-3, M81183-5, M81183-7, M81183-9, M81183-11, M81183-13, M81183-16, M81183-18, M81183-20

CAS No.	Compound	M81179-6 mg/l	Spike Q mg/l	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	CT-DRO (C9-C36)	ND	0.7	0.626	89	0.634	91	1	50-129/26

CAS No.	Surrogate Recoveries	MS	MSD	M81179-6	Limits
3386-33-2	1-Chlorooctadecane	77%	80%	78%	50-149%

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

**Job Number:** M81183

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP18048-MS	BE15058.D	1	03/13/09	SL	03/11/09	OP18048	GBE1057
OP18048-MSD	BE15059.D	1	03/13/09	SL	03/11/09	OP18048	GBE1057
M81179-7	BE15060.D	1	03/13/09	SL	03/11/09	OP18048	GBE1057

The QC reported here applies to the following samples:

Method: SW846 8082

M81183-1, M81183-3, M81183-5, M81183-7, M81183-9, M81183-11, M81183-13, M81183-16, M81183-18, M81183-20

CAS No.	Compound	M81179-7 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	ND	2		2.3	115	2.3	115	0	53-140/36
11104-28-2	Aroclor 1221	ND			ND		ND		nc	40-140/50
11141-16-5	Aroclor 1232	ND			ND		ND		nc	40-140/50
53469-21-9	Aroclor 1242	ND			ND		ND		nc	40-140/50
12672-29-6	Aroclor 1248	ND			ND		ND		nc	40-140/50
11097-69-1	Aroclor 1254	ND			ND		ND		nc	40-140/50
11096-82-5	Aroclor 1260	ND	2		2.2	110	2.3	115	4	54-140/27
37324-23-5	Aroclor 1262	ND			ND		ND		nc	40-140/20
11100-14-4	Aroclor 1268	ND			ND		ND		nc	40-140/50

CAS No.	Surrogate Recoveries	MS	MSD	M81179-7	Limits
877-09-8	Tetrachloro-m-xylene	105%	108%	108%	32-149%
877-09-8	Tetrachloro-m-xylene	115%	120%	120%	32-149%
2051-24-3	Decachlorobiphenyl	92%	102%	101%	30-150%
2051-24-3	Decachlorobiphenyl	77%	90%	88%	30-150%

# Semivolatile Surrogate Recovery Summary

Page 1 of 1

**Job Number:** M81183

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Method:** CT-ETPH

**Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 <sup>a</sup>
M81183-1	BC25814A.D	90.0
M81183-3	BC25815A.D	83.0
M81183-5	BC25816A.D	87.0
M81183-7	BC25817A.D	78.0
M81183-9	BC25818A.D	79.0
M81183-11	BC25819A.D	89.0
M81183-13	BC25820A.D	75.0
M81183-16	BC25822A.D	101.0
M81183-18	BC25823A.D	84.0
M81183-20	BC25824A.D	88.0
OP18047-BS	BC25802A.D	79.0
OP18047-MB	BC25801D.D	72.0
OP18047-MS	BC25803A.D	77.0
OP18047-MSD	BC25804A.D	80.0

Surrogate Compounds	Recovery Limits
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S1 = 1-Chlorooctadecane	50-149%
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(a) Recovery from GC signal #1

6.4.1

6

# Semivolatile Surrogate Recovery Summary

Page 1 of 1

**Job Number:** M81183

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Method:** SW846 8082

**Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 <sup>a</sup>	S1 <sup>b</sup>	S2 <sup>a</sup>	S2 <sup>b</sup>
M81183-1	BE15062.D	110.0	120.0	126.0	124.0
M81183-3	BE15063.D	103.0	107.0	116.0	107.0
M81183-5	BE15064.D	107.0	117.0	122.0	117.0
M81183-7	BE15065.D	106.0	115.0	110.0	85.0
M81183-9	BE15067.D	101.0	111.0	94.0	85.0
M81183-11	BE15068.D	109.0	114.0	119.0	118.0
M81183-13	BE15069.D	102.0	111.0	91.0	80.0
M81183-16	BE15070.D	109.0	115.0	124.0	119.0
M81183-18	BE15071.D	110.0	117.0	113.0	110.0
M81183-20	BE15072.D	108.0	116.0	107.0	104.0
OP18048-BS	BE15057.D	113.0	120.0	92.0	82.0
OP18048-MB	BE15056.D	109.0	116.0	85.0	76.0
OP18048-MS	BE15058.D	105.0	115.0	92.0	77.0
OP18048-MSD	BE15059.D	108.0	120.0	102.0	90.0

## Surrogate Compounds

## Recovery Limits

S1 = Tetrachloro-m-xylene

32-149%

S2 = Decachlorobiphenyl

30-150%

(a) Recovery from GC signal #1

(b) Recovery from GC signal #2

6.4.2

6



## Metals Analysis

### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: M81183  
Account: LEA - Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP13188  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date: 03/11/09

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	14	31		
Antimony	6.0	2.9	3		
Arsenic	10	2.7	3.2	-0.83	<10
Barium	200	.64	1.2	0.78	<200
Beryllium	4.0	.17	.3		
Boron	100	2.3	4.8		
Cadmium	4.0	.24	.3	0.13	<4.0
Calcium	5000	4.7	40		
Chromium	10	.51	1.4	-0.050	<10
Cobalt	50	.76	1		
Copper	25	1.1	1.8	0.89	<25
Iron	100	11	29		
Lead	5.0	1.3	1.8	1.1	<5.0
Magnesium	5000	8	10		
Manganese	15	.17	1.3		
Molybdenum	100	.5	1.4		
Nickel	40	.65	1	-0.40	<40
Potassium	5000	25	31		
Selenium	10	1.6	3.3	-0.29	<10
Silver	5.0	.64	.7	0.30	<5.0
Sodium	5000	99	210		
Strontium	10	.12	.3		
Thallium	10	2	4.5		
Tin	100	1.6	9.9		
Titanium	50	4.1	5.1		
Tungsten	100	5.4	7		
Vanadium	30	.65	3.5		
Zinc	20	1.1	1.3	2.5	<20

Associated samples MP13188: M81183-2, M81183-4, M81183-6, M81183-8, M81183-10, M81183-12, M81183-14, M81183-17, M81183-19, M81183-21

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested



MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: M81183  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP13188  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 03/11/09 03/11/09

Metal	M81183-2 Original MS		Spikelot MPICP	% Rec	QC Limits	M81183-2 Original DUP		RPD	QC Limits
Aluminum									
Antimony									
Arsenic	0.0	530	500	106.0	75-125	0.0	0.0	NC	0-20
Barium	59.9	2140	2000	104.0	75-125	59.9	60.2	0.5	0-20
Beryllium									
Boron									
Cadmium	0.0	520	500	104.0	75-125	0.0	0.28	200.0(a)	0-20
Calcium									
Chromium	0.0	529	500	105.8	75-125	0.0	0.0	NC	0-20
Cobalt									
Copper	1.6	526	500	104.9	75-125	1.6	1.3	20.7 (a)	0-20
Iron									
Lead	0.0	1060	1000	106.0	75-125	0.0	1.3	200.0(a)	0-20
Magnesium									
Manganese									
Molybdenum									
Nickel	0.84	509	500	101.6	75-125	0.84	1.0	17.4	0-20
Potassium									
Selenium	0.0	540	500	108.0	75-125	0.0	0.0	NC	0-20
Silver	0.0	209	200	104.5	75-125	0.0	0.0	NC	0-20
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Tungsten									
Vanadium									
Zinc	25.8	546	500	104.0	75-125	25.8	25.6	0.8	0-20

Associated samples MP13188: M81183-2, M81183-4, M81183-6, M81183-8, M81183-10, M81183-12, M81183-14, M81183-17, M81183-19, M81183-21

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) RPD acceptable due to low duplicate and sample concentrations.

## SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: M81183  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP13188  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 03/11/09

03/11/09

Metal	BSP Result	Spikelot MPICP	% Rec	QC Limits	BSD Result	Spikelot MPICP	% Rec	BSD RPD	QC Limit
Aluminum									
Antimony									
Arsenic	532	500	106.4	80-120	538	500	107.6	1.1	20
Barium	2070	2000	103.5	80-120	2100	2000	105.0	1.4	20
Beryllium									
Boron									
Cadmium	523	500	104.6	80-120	530	500	106.0	1.3	20
Calcium									
Chromium	533	500	106.6	80-120	538	500	107.6	0.9	20
Cobalt									
Copper	525	500	105.0	80-120	528	500	105.6	0.6	20
Iron									
Lead	1060	1000	106.0	80-120	1080	1000	108.0	1.9	20
Magnesium									
Manganese									
Molybdenum									
Nickel	509	500	101.8	80-120	513	500	102.6	0.8	20
Potassium									
Selenium	549	500	109.8	80-120	555	500	111.0	1.1	20
Silver	208	200	104.0	80-120	212	200	106.0	1.9	20
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Tungsten									
Vanadium									
Zinc	522	500	104.4	80-120	530	500	106.0	1.5	20

Associated samples MP13188: M81183-2, M81183-4, M81183-6, M81183-8, M81183-10, M81183-12, M81183-14, M81183-17, M81183-19, M81183-21

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (anr) Analyte not requested

# SERIAL DILUTION RESULTS SUMMARY

Login Number: M81183  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP13188  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 03/11/09

Metal	M81183-2 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	0.00	0.00	NC	0-10
Barium	59.9	66.6	11.3 (a)	0-10
Beryllium				
Boron				
Cadmium	0.00	0.00	NC	0-10
Calcium				
Chromium	0.00	0.00	NC	0-10
Cobalt				
Copper	1.62	0.00	100.0(b)	0-10
Iron				
Lead	0.00	0.00	NC	0-10
Magnesium				
Manganese				
Molybdenum				
Nickel	0.840	0.00	100.0(b)	0-10
Potassium				
Selenium	0.00	0.00	NC	0-10
Silver	0.00	0.00	NC	0-10
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc	25.8	26.1	1.0	0-10

Associated samples MP13188: M81183-2, M81183-4, M81183-6, M81183-8, M81183-10, M81183-12, M81183-14, M81183-17, M81183-19, M81183-21

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

(a) Serial Dilution RPD acceptable due to low duplicate and sample concentrations.

(b) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: M81183  
Account: LEA - Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP13200  
Matrix Type: AQUEOUS

Methods: SW846 7470A  
Units: ug/l

Prep Date: 03/13/09

Metal	RL	IDL	MDL	MB raw	final
-------	----	-----	-----	-----------	-------

Mercury	0.20	.019	.033	-0.015	<0.20
---------	------	------	------	--------	-------

Associated samples MP13200: M81183-2, M81183-4, M81183-6, M81183-8, M81183-10, M81183-12, M81183-14, M81183-17, M81183-19, M81183-21

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

7.2.1

7

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: M81183  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP13200  
 Matrix Type: AQUEOUS

Methods: SW846 7470A  
 Units: ug/l

Prep Date: 03/13/09 03/13/09

Metal	M81183-4 Original MS		Spikelot HGRWS1 % Rec		QC Limits	M81183-4 Original DUP		RPD	QC Limits
Mercury	0.0	3.1	3	103.3	75-125	0.0	0.0	NC	0-20

Associated samples MP13200: M81183-2, M81183-4, M81183-6, M81183-8, M81183-10, M81183-12, M81183-14, M81183-17, M81183-19, M81183-21

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: M81183  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP13200  
 Matrix Type: AQUEOUS

Methods: SW846 7470A  
 Units: ug/l

Prep Date: 03/13/09 03/13/09

Metal	BSP Result	Spikelot HGRWS1	% Rec	QC Limits	BSD Result	Spikelot HGRWS1	% Rec	BSD RPD	QC Limit
Mercury	2.9	3	96.7	80-120	3.0	3	100.0	3.4	20

Associated samples MP13200: M81183-2, M81183-4, M81183-6, M81183-8, M81183-10, M81183-12, M81183-14, M81183-17, M81183-19, M81183-21

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested



01/19/10

IT'S ALL IN THE CHEMISTRY

01/19/10

## Technical Report for

Loureiro Eng. Associates

UTC: 2009 Quarterly GW-Willow Pond

88UT907

Accutest Job Number: M81204

Sampling Date: 03/11/09

Report to:

Loureiro Eng. Associates

hmgrimm@loureiro.com

ATTN: Heather Grimm

Total number of pages in report: **93**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Reza Fand  
Lab Director

Client Service contact: Kristen Blanchard 508-481-6200

Certifications: MA (M-MA136) CT (PH-0109) NH (2502) RI (00071) ME (MA0136) FL (E87579)  
NY (11791) NJ (MA926) NC (653) IL (200018) NAVY USACE

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Test results relate only to samples analyzed.

# Table of Contents

-1-

<b>Section 1: Sample Summary .....</b>	<b>3</b>
<b>Section 2: Case Narrative/Conformance Summary .....</b>	<b>5</b>
<b>Section 3: Sample Results .....</b>	<b>7</b>
<b>3.1:</b> M81204-1: 1117655 .....	8
<b>3.2:</b> M81204-2: 1117655UF .....	13
<b>3.3:</b> M81204-3: 1117656 .....	14
<b>3.4:</b> M81204-4: 1117656UF .....	19
<b>3.5:</b> M81204-5: 1117657 .....	20
<b>3.6:</b> M81204-6: 1117657UF .....	25
<b>3.7:</b> M81204-7: 1117661 .....	26
<b>3.8:</b> M81204-8: 1117661UF .....	31
<b>3.9:</b> M81204-9: 1117660 .....	32
<b>3.10:</b> M81204-10: 1117652 .....	35
<b>3.11:</b> M81204-11: 1117652UF .....	40
<b>3.12:</b> M81204-12: 1117653 .....	41
<b>3.13:</b> M81204-13: 1117653UF .....	46
<b>3.14:</b> M81204-14: 1117654 .....	47
<b>3.15:</b> M81204-15: 1117654UF .....	52
<b>Section 4: Misc. Forms .....</b>	<b>53</b>
<b>4.1:</b> Certification Exceptions .....	54
<b>4.2:</b> Chain of Custody .....	55
<b>4.3:</b> RCP Form .....	58
<b>4.4:</b> Sample Tracking Chronicle .....	59
<b>Section 5: GC/MS Volatiles - QC Data Summaries .....</b>	<b>62</b>
<b>5.1:</b> Method Blank Summary .....	63
<b>5.2:</b> Blank Spike/Blank Spike Duplicate Summary .....	66
<b>5.3:</b> Matrix Spike/Matrix Spike Duplicate Summary .....	69
<b>5.4:</b> Internal Standard Area Summaries .....	72
<b>5.5:</b> Surrogate Recovery Summaries .....	73
<b>Section 6: GC Semi-volatiles - QC Data Summaries .....</b>	<b>74</b>
<b>6.1:</b> Method Blank Summary .....	75
<b>6.2:</b> Blank Spike Summary .....	77
<b>6.3:</b> Matrix Spike/Matrix Spike Duplicate Summary .....	79
<b>6.4:</b> Surrogate Recovery Summaries .....	81
<b>Section 7: Metals Analysis - QC Data Summaries .....</b>	<b>83</b>
<b>7.1:</b> Prep QC MP13195: As,Ba,Cd,Cr,Cu,Pb,Ni,Se,Ag,Zn .....	84
<b>7.2:</b> Prep QC MP13200: Hg .....	88
<b>7.3:</b> Prep QC MP13208: Hg .....	91





## Sample Summary

Loureiro Eng. Associates

Job No: M81204

UTC: 2009 Quarterly GW-Willow Pond

Project No: 88UT907

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
M81204-1	03/11/09	10:05 LC	03/11/09	AQ	Ground Water	1117655
M81204-2	03/11/09	10:05 LC	03/11/09	AQ	Ground Water	1117655UF
M81204-3	03/11/09	12:30 LC	03/11/09	AQ	Ground Water	1117656
M81204-4	03/11/09	12:30 LC	03/11/09	AQ	Ground Water	1117656UF
M81204-5	03/11/09	14:10 LC	03/11/09	AQ	Ground Water	1117657
M81204-6	03/11/09	14:10 LC	03/11/09	AQ	Ground Water	1117657UF
M81204-7	03/11/09	10:05 LC	03/11/09	AQ	Ground Water	1117661
M81204-8	03/11/09	10:05 LC	03/11/09	AQ	Ground Water	1117661UF
M81204-9	03/11/09	12:00 LC	03/11/09	AQ	Ground Water	1117660
M81204-10	03/11/09	10:55 LC	03/11/09	AQ	Ground Water	1117652
M81204-11	03/11/09	10:55 LC	03/11/09	AQ	Ground Water	1117652UF
M81204-12	03/11/09	13:35 LC	03/11/09	AQ	Ground Water	1117653
M81204-13	03/11/09	13:35 LC	03/11/09	AQ	Ground Water	1117653UF



**Sample Summary**  
(continued)

Loureiro Eng. Associates

**Job No:** M81204

UTC: 2009 Quarterly GW-Willow Pond  
Project No: 88UT907

Sample Number	Collected		Matrix Code	Type	Client	
	Date	Time By	Received		Sample ID	
M81204-14	03/11/09	15:20 LC	03/11/09	AQ	Ground Water	1117654
M81204-15	03/11/09	15:20 LC	03/11/09	AQ	Ground Water	1117654UF

## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Loureiro Eng. Associates

**Job No** M81204

**Site:** UTC: 2009 Quarterly GW-Willow Pond

**Report Date** 3/25/2009 11:13:51 AM

15 Sample(s) were collected on 03/11/2009 and were received at Accutest on 03/11/2009 properly preserved, at 1.1 Deg. C and intact. These Samples received an Accutest job number of M81204. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### Volatiles by GCMS By Method SW846 8260B

<b>Matrix</b> AQ	<b>Batch ID:</b> MSG3589
------------------	--------------------------

- All samples were analyzed within the recommended method holding time.
- Sample(s) M81197-4MS, M81197-4MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- MS/MSD has compounds exceed RCP control limits (70-130%), but within in-house control limits. Refer to MS/MSD spike summary pages for detail.
- Initial calibration standard (batch MSG3531) for chloromethane, bromomethane, 1,1-dichloroethene, acetone, trans-1,2-dichloroethene, cis-1,2-dichloroethene, trans-1,4-dichloro-2-butene, naphthalene is employed quadratic regression.

### Extractables by GC By Method CT-ETPH

<b>Matrix</b> AQ	<b>Batch ID:</b> OP18064
------------------	--------------------------

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M81179-16MS, M81179-16MSD were used as the QC samples indicated.

### Extractables by GC By Method SW846 8082

<b>Matrix</b> AQ	<b>Batch ID:</b> OP18056
------------------	--------------------------

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) OP18056-MS/MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

## Metals By Method SW846 6010B

**Matrix** AQ

**Batch ID:** MP13195

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M81205-7DUP, M81205-7MS, M81205-7SDL were used as the QC samples for metals.
- RPD(s) for Duplicate for Cadmium are outside control limits for sample MP13195-D1. RPD acceptable due to low duplicate and sample concentrations.
- RPD(s) for Serial Dilution for Cadmium, Copper are outside control limits for sample MP13195-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- Only selected metals requested.

## Metals By Method SW846 7470A

**Matrix** AQ

**Batch ID:** MP13200

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M81183-4DUP, M81183-4MS were used as the QC samples for metals.

**Matrix** AQ

**Batch ID:** MP13208

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M81231-4DUP, M81231-4MS were used as the QC samples for metals.

Note: Compounds whose reported QC limits are outside the CT Recommended Reasonable Confidence Protocol QC criteria are designated by the lab as "Problem Compounds". QC criteria for a "Problem Compound" may meet Accutest in-house generated QC criteria but exceed the RCP criteria (compounds exceeding Accutest QC criteria are flagged on the QC summary). Refer to the QC summary pages.

Unless otherwise noted, sample dilutions are performed in order to report the result within the calibration range.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety. The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report (M81204).



## Sample Results

## Report of Analysis

## Report of Analysis

<b>Client Sample ID:</b>	1117655	<b>Date Sampled:</b>	03/11/09
<b>Lab Sample ID:</b>	M81204-1	<b>Date Received:</b>	03/11/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G88864.D	1	03/18/09	EL	n/a	n/a	MSG3589
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	3.6	1.0	ug/l	
107-06-2	1,2-Dichloroethane	2.0	1.0	ug/l	
75-35-4	1,1-Dichloroethene	35.1	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	39.7	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	1.0	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117655	<b>Date Sampled:</b>	03/11/09
<b>Lab Sample ID:</b>	M81204-1	<b>Date Received:</b>	03/11/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	33.2	1.0	ug/l	
109-99-9	Tetrahydrofuran	16.5	10	ug/l	
108-88-3	Toluene	2.5	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	2.4	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	305	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	14.7	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		79-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117655	<b>Date Sampled:</b>	03/11/09
<b>Lab Sample ID:</b>	M81204-1	<b>Date Received:</b>	03/11/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	110%		80-120%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

**Client Sample ID:** 1117655  
**Lab Sample ID:** M81204-1  
**Matrix:** AQ - Ground Water  
**Method:** CT-ETPH SW846 3510C  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Date Sampled:** 03/11/09  
**Date Received:** 03/11/09  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC25805.D	1	03/17/09	DG	03/13/09	OP18064	GBC1421
Run #2							

	Initial Volume	Final Volume
Run #1	930 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	0.198	0.086	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	83%		50-149%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1117655  
**Lab Sample ID:** M81204-1  
**Matrix:** AQ - Ground Water  
**Method:** SW846 8082 SW846 3510C  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Date Sampled:** 03/11/09  
**Date Received:** 03/11/09  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BE15083.D	1	03/13/09	SL	03/12/09	OP18056	GBE1058
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.28	ug/l	
11104-28-2	Aroclor 1221	ND	0.28	ug/l	
11141-16-5	Aroclor 1232	ND	0.28	ug/l	
53469-21-9	Aroclor 1242	ND	0.28	ug/l	
12672-29-6	Aroclor 1248	ND	0.28	ug/l	
11097-69-1	Aroclor 1254	ND	0.28	ug/l	
11096-82-5	Aroclor 1260	ND	0.28	ug/l	
37324-23-5	Aroclor 1262	ND	0.28	ug/l	
11100-14-4	Aroclor 1268	ND	0.28	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	86%		32-149%
877-09-8	Tetrachloro-m-xylene	102%		32-149%
2051-24-3	Decachlorobiphenyl	103%		30-150%
2051-24-3	Decachlorobiphenyl	99%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 1117655UF

Lab Sample ID: M81204-2

Matrix: AQ - Ground Water

Date Sampled: 03/11/09

Date Received: 03/11/09

Percent Solids: n/a

Project: UTC: 2009 Quarterly GW-Willow Pond

## Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	9.5	4.0	ug/l	1	03/13/09	03/17/09 PY	SW846 6010B <sup>3</sup>	SW846 3010A <sup>4</sup>
Barium	289	200	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Cadmium	< 4.0	4.0	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Chromium	< 10	10	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Copper	< 25	25	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Lead	< 5.0	5.0	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Mercury	< 0.20	0.20	ug/l	1	03/13/09	03/13/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>5</sup>
Nickel	48.1	40	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Selenium	< 10	10	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Silver	< 5.0	5.0	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Zinc	27.0	20	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>

(1) Instrument QC Batch: MA10245

(2) Instrument QC Batch: MA10246

(3) Instrument QC Batch: MA10252

(4) Prep QC Batch: MP13195

(5) Prep QC Batch: MP13200

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1117656		
<b>Lab Sample ID:</b>	M81204-3	<b>Date Sampled:</b>	03/11/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	03/11/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G88858.D	1	03/18/09	EL	n/a	n/a	MSG3589
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	24.2	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	4.6	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	25.3	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	1.5	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117656	<b>Date Sampled:</b>	03/11/09
<b>Lab Sample ID:</b>	M81204-3	<b>Date Received:</b>	03/11/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	1.2	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	2.3	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	30.5	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		79-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117656	<b>Date Sampled:</b>	03/11/09
<b>Lab Sample ID:</b>	M81204-3	<b>Date Received:</b>	03/11/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	112%		80-120%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1117656  
**Lab Sample ID:** M81204-3  
**Matrix:** AQ - Ground Water  
**Method:** CT-ETPH SW846 3510C  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Date Sampled:** 03/11/09  
**Date Received:** 03/11/09  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC25806.D	1	03/17/09	DG	03/13/09	OP18064	GBC1421
Run #2							

	Initial Volume	Final Volume
Run #1	920 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	0.0881	0.087	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	77%		50-149%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117656		
<b>Lab Sample ID:</b>	M81204-3	<b>Date Sampled:</b>	03/11/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	03/11/09
<b>Method:</b>	SW846 8082 SW846 3510C	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BE15084.D	1	03/13/09	SL	03/12/09	OP18056	GBE1058
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.28	ug/l	
11104-28-2	Aroclor 1221	ND	0.28	ug/l	
11141-16-5	Aroclor 1232	ND	0.28	ug/l	
53469-21-9	Aroclor 1242	ND	0.28	ug/l	
12672-29-6	Aroclor 1248	ND	0.28	ug/l	
11097-69-1	Aroclor 1254	ND	0.28	ug/l	
11096-82-5	Aroclor 1260	ND	0.28	ug/l	
37324-23-5	Aroclor 1262	ND	0.28	ug/l	
11100-14-4	Aroclor 1268	ND	0.28	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	101%		32-149%
877-09-8	Tetrachloro-m-xylene	111%		32-149%
2051-24-3	Decachlorobiphenyl	113%		30-150%
2051-24-3	Decachlorobiphenyl	117%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	1117656UF	<b>Date Sampled:</b>	03/11/09
<b>Lab Sample ID:</b>	M81204-4	<b>Date Received:</b>	03/11/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	03/13/09	03/17/09 PY	SW846 6010B <sup>3</sup>	SW846 3010A <sup>4</sup>
Barium	302	200	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Cadmium	< 4.0	4.0	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Chromium	< 10	10	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Copper	< 25	25	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Lead	< 5.0	5.0	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Mercury	< 0.20	0.20	ug/l	1	03/13/09	03/13/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>5</sup>
Nickel	< 40	40	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Selenium	< 10	10	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Silver	< 5.0	5.0	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Zinc	< 20	20	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>

(1) Instrument QC Batch: MA10245

(2) Instrument QC Batch: MA10246

(3) Instrument QC Batch: MA10252

(4) Prep QC Batch: MP13195

(5) Prep QC Batch: MP13200

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1117657		
<b>Lab Sample ID:</b>	M81204-5	<b>Date Sampled:</b>	03/11/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	03/11/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G88859.D	1	03/18/09	EL	n/a	n/a	MSG3589
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117657	<b>Date Sampled:</b>	03/11/09
<b>Lab Sample ID:</b>	M81204-5	<b>Date Received:</b>	03/11/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		79-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117657	<b>Date Sampled:</b>	03/11/09
<b>Lab Sample ID:</b>	M81204-5	<b>Date Received:</b>	03/11/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	111%		80-120%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1117657  
**Lab Sample ID:** M81204-5  
**Matrix:** AQ - Ground Water  
**Method:** CT-ETPH SW846 3510C  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Date Sampled:** 03/11/09  
**Date Received:** 03/11/09  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC25807.D	1	03/17/09	DG	03/13/09	OP18064	GBC1421
Run #2							

	Initial Volume	Final Volume
Run #1	930 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	0.131	0.086	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	79%		50-149%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1117657  
**Lab Sample ID:** M81204-5  
**Matrix:** AQ - Ground Water  
**Method:** SW846 8082 SW846 3510C  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Date Sampled:** 03/11/09  
**Date Received:** 03/11/09  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BE15085.D	1	03/14/09	SL	03/12/09	OP18056	GBE1058
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.28	ug/l	
11104-28-2	Aroclor 1221	ND	0.28	ug/l	
11141-16-5	Aroclor 1232	ND	0.28	ug/l	
53469-21-9	Aroclor 1242	ND	0.28	ug/l	
12672-29-6	Aroclor 1248	ND	0.28	ug/l	
11097-69-1	Aroclor 1254	ND	0.28	ug/l	
11096-82-5	Aroclor 1260	ND	0.28	ug/l	
37324-23-5	Aroclor 1262	ND	0.28	ug/l	
11100-14-4	Aroclor 1268	ND	0.28	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	90%		32-149%
877-09-8	Tetrachloro-m-xylene	101%		32-149%
2051-24-3	Decachlorobiphenyl	111%		30-150%
2051-24-3	Decachlorobiphenyl	112%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 1117657UF

Lab Sample ID: M81204-6

Matrix: AQ - Ground Water

Date Sampled: 03/11/09

Date Received: 03/11/09

Percent Solids: n/a

Project: UTC: 2009 Quarterly GW-Willow Pond

## Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	03/13/09	03/17/09 PY	SW846 6010B <sup>3</sup>	SW846 3010A <sup>4</sup>
Barium	< 200	200	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Cadmium	< 4.0	4.0	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Chromium	< 10	10	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Copper	< 25	25	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Lead	< 5.0	5.0	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Mercury	< 0.20	0.20	ug/l	1	03/13/09	03/13/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>5</sup>
Nickel	< 40	40	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Selenium	< 10	10	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Silver	< 5.0	5.0	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Zinc	22.1	20	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>

(1) Instrument QC Batch: MA10245

(2) Instrument QC Batch: MA10246

(3) Instrument QC Batch: MA10252

(4) Prep QC Batch: MP13195

(5) Prep QC Batch: MP13200

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1117661		
<b>Lab Sample ID:</b>	M81204-7	<b>Date Sampled:</b>	03/11/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	03/11/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G88865.D	1	03/18/09	EL	n/a	n/a	MSG3589
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	3.7	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	36.3	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	40.0	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	1.1	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	1117661	<b>Date Sampled:</b>	03/11/09
<b>Lab Sample ID:</b>	M81204-7	<b>Date Received:</b>	03/11/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	32.6	1.0	ug/l	
109-99-9	Tetrahydrofuran	16.9	10	ug/l	
108-88-3	Toluene	2.4	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	2.5	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	306	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	15.3	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		79-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117661	<b>Date Sampled:</b>	03/11/09
<b>Lab Sample ID:</b>	M81204-7	<b>Date Received:</b>	03/11/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	113%		80-120%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117661						
<b>Lab Sample ID:</b>	M81204-7					<b>Date Sampled:</b>	03/11/09
<b>Matrix:</b>	AQ - Ground Water					<b>Date Received:</b>	03/11/09
<b>Method:</b>	CT-ETPH SW846 3510C					<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC25808.D	1	03/17/09	DG	03/13/09	OP18064	GBC1421
Run #2							

	Initial Volume	Final Volume
Run #1	940 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	0.175	0.085	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
3386-33-2	1-Chlorooctadecane	79%		50-149%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117661		
<b>Lab Sample ID:</b>	M81204-7	<b>Date Sampled:</b>	03/11/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	03/11/09
<b>Method:</b>	SW846 8082 SW846 3510C	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BE15087.D	1	03/14/09	SL	03/12/09	OP18056	GBE1058
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.28	ug/l	
11104-28-2	Aroclor 1221	ND	0.28	ug/l	
11141-16-5	Aroclor 1232	ND	0.28	ug/l	
53469-21-9	Aroclor 1242	ND	0.28	ug/l	
12672-29-6	Aroclor 1248	ND	0.28	ug/l	
11097-69-1	Aroclor 1254	ND	0.28	ug/l	
11096-82-5	Aroclor 1260	ND	0.28	ug/l	
37324-23-5	Aroclor 1262	ND	0.28	ug/l	
11100-14-4	Aroclor 1268	ND	0.28	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	92%		32-149%
877-09-8	Tetrachloro-m-xylene	106%		32-149%
2051-24-3	Decachlorobiphenyl	105%		30-150%
2051-24-3	Decachlorobiphenyl	104%		30-150%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> 1117661UF	<b>Date Sampled:</b> 03/11/09
<b>Lab Sample ID:</b> M81204-8	<b>Date Received:</b> 03/11/09
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> UTC: 2009 Quarterly GW-Willow Pond	

## Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	7.6	4.0	ug/l	1	03/13/09	03/17/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Barium	291	200	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>4</sup>
Cadmium	< 4.0	4.0	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>4</sup>
Chromium	< 10	10	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>4</sup>
Copper	< 25	25	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>4</sup>
Lead	< 5.0	5.0	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>4</sup>
Mercury	< 0.20	0.20	ug/l	1	03/16/09	03/17/09 CF	SW846 7470A <sup>3</sup>	SW846 7470A <sup>5</sup>
Nickel	48.5	40	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>4</sup>
Selenium	< 10	10	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>4</sup>
Silver	< 5.0	5.0	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>4</sup>
Zinc	25.0	20	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>4</sup>

(1) Instrument QC Batch: MA10246

(2) Instrument QC Batch: MA10252

(3) Instrument QC Batch: MA10256

(4) Prep QC Batch: MP13195

(5) Prep QC Batch: MP13208

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1117660	<b>Date Sampled:</b>	03/11/09
<b>Lab Sample ID:</b>	M81204-9	<b>Date Received:</b>	03/11/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G88860.D	1	03/18/09	EL	n/a	n/a	MSG3589
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117660	<b>Date Sampled:</b>	03/11/09
<b>Lab Sample ID:</b>	M81204-9	<b>Date Received:</b>	03/11/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		79-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117660	<b>Date Sampled:</b>	03/11/09
<b>Lab Sample ID:</b>	M81204-9	<b>Date Received:</b>	03/11/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	111%		80-120%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	1117652		
<b>Lab Sample ID:</b>	M81204-10	<b>Date Sampled:</b>	03/11/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	03/11/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G88861.D	1	03/18/09	EL	n/a	n/a	MSG3589
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.5	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117652	<b>Date Sampled:</b>	03/11/09
<b>Lab Sample ID:</b>	M81204-10	<b>Date Received:</b>	03/11/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	6.2	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	24.7	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		79-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117652	<b>Date Sampled:</b>	03/11/09
<b>Lab Sample ID:</b>	M81204-10	<b>Date Received:</b>	03/11/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	97%		80-120%
460-00-4	4-Bromofluorobenzene	113%		80-120%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117652						
<b>Lab Sample ID:</b>	M81204-10				<b>Date Sampled:</b>	03/11/09	
<b>Matrix:</b>	AQ - Ground Water				<b>Date Received:</b>	03/11/09	
<b>Method:</b>	CT-ETPH SW846 3510C				<b>Percent Solids:</b>	n/a	
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC25809.D	1	03/17/09	DG	03/13/09	OP18064	GBC1421
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	0.129	0.084	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
3386-33-2	1-Chlorooctadecane	82%		50-149%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117652		
<b>Lab Sample ID:</b>	M81204-10	<b>Date Sampled:</b>	03/11/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	03/11/09
<b>Method:</b>	SW846 8082 SW846 3510C	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BE15088.D	1	03/14/09	SL	03/12/09	OP18056	GBE1058
Run #2							

	Initial Volume	Final Volume
Run #1	750 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.33	ug/l	
11104-28-2	Aroclor 1221	ND	0.33	ug/l	
11141-16-5	Aroclor 1232	ND	0.33	ug/l	
53469-21-9	Aroclor 1242	ND	0.33	ug/l	
12672-29-6	Aroclor 1248	ND	0.33	ug/l	
11097-69-1	Aroclor 1254	ND	0.33	ug/l	
11096-82-5	Aroclor 1260	ND	0.33	ug/l	
37324-23-5	Aroclor 1262	ND	0.33	ug/l	
11100-14-4	Aroclor 1268	ND	0.33	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	92%		32-149%
877-09-8	Tetrachloro-m-xylene	101%		32-149%
2051-24-3	Decachlorobiphenyl	110%		30-150%
2051-24-3	Decachlorobiphenyl	116%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1117652UF**Lab Sample ID:** M81204-11**Matrix:** AQ - Ground Water**Date Sampled:** 03/11/09**Date Received:** 03/11/09**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond**Total Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	03/13/09	03/17/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Barium	307	200	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>4</sup>
Cadmium	< 4.0	4.0	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>4</sup>
Chromium	< 10	10	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>4</sup>
Copper	< 25	25	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>4</sup>
Lead	< 5.0	5.0	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>4</sup>
Mercury	< 0.20	0.20	ug/l	1	03/16/09	03/17/09 CF	SW846 7470A <sup>3</sup>	SW846 7470A <sup>5</sup>
Nickel	70.6	40	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>4</sup>
Selenium	< 10	10	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>4</sup>
Silver	< 5.0	5.0	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>4</sup>
Zinc	< 20	20	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>4</sup>

(1) Instrument QC Batch: MA10246

(2) Instrument QC Batch: MA10252

(3) Instrument QC Batch: MA10256

(4) Prep QC Batch: MP13195

(5) Prep QC Batch: MP13208

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1117653	<b>Date Sampled:</b>	03/11/09
<b>Lab Sample ID:</b>	M81204-12	<b>Date Received:</b>	03/11/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G88862.D	1	03/18/09	EL	n/a	n/a	MSG3589
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117653	<b>Date Sampled:</b>	03/11/09
<b>Lab Sample ID:</b>	M81204-12	<b>Date Received:</b>	03/11/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	2.0	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	1.6	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		79-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	1117653	<b>Date Sampled:</b>	03/11/09
<b>Lab Sample ID:</b>	M81204-12	<b>Date Received:</b>	03/11/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	96%		80-120%
460-00-4	4-Bromofluorobenzene	113%		80-120%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1117653  
**Lab Sample ID:** M81204-12  
**Matrix:** AQ - Ground Water  
**Method:** CT-ETPH SW846 3510C  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Date Sampled:** 03/11/09  
**Date Received:** 03/11/09  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC25811.D	1	03/17/09	DG	03/13/09	OP18064	GBC1421
Run #2							

	Initial Volume	Final Volume
Run #1	940 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	0.121	0.085	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	82%		50-149%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117653		
<b>Lab Sample ID:</b>	M81204-12	<b>Date Sampled:</b>	03/11/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	03/11/09
<b>Method:</b>	SW846 8082 SW846 3510C	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BE15089.D	1	03/14/09	SL	03/12/09	OP18056	GBE1058
Run #2							

	Initial Volume	Final Volume
Run #1	750 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.33	ug/l	
11104-28-2	Aroclor 1221	ND	0.33	ug/l	
11141-16-5	Aroclor 1232	ND	0.33	ug/l	
53469-21-9	Aroclor 1242	ND	0.33	ug/l	
12672-29-6	Aroclor 1248	ND	0.33	ug/l	
11097-69-1	Aroclor 1254	ND	0.33	ug/l	
11096-82-5	Aroclor 1260	ND	0.33	ug/l	
37324-23-5	Aroclor 1262	ND	0.33	ug/l	
11100-14-4	Aroclor 1268	ND	0.33	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	95%		32-149%
877-09-8	Tetrachloro-m-xylene	106%		32-149%
2051-24-3	Decachlorobiphenyl	108%		30-150%
2051-24-3	Decachlorobiphenyl	105%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 1117653UF

Lab Sample ID: M81204-13

Matrix: AQ - Ground Water

Date Sampled: 03/11/09

Date Received: 03/11/09

Percent Solids: n/a

Project: UTC: 2009 Quarterly GW-Willow Pond

## Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	5.3	4.0	ug/l	1	03/13/09	03/17/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Barium	218	200	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>4</sup>
Cadmium	< 4.0	4.0	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>4</sup>
Chromium	< 10	10	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>4</sup>
Copper	< 25	25	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>4</sup>
Lead	< 5.0	5.0	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>4</sup>
Mercury	< 0.20	0.20	ug/l	1	03/16/09	03/17/09 CF	SW846 7470A <sup>3</sup>	SW846 7470A <sup>5</sup>
Nickel	< 40	40	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>4</sup>
Selenium	< 10	10	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>4</sup>
Silver	< 5.0	5.0	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>4</sup>
Zinc	< 20	20	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>4</sup>

(1) Instrument QC Batch: MA10246

(2) Instrument QC Batch: MA10252

(3) Instrument QC Batch: MA10256

(4) Prep QC Batch: MP13195

(5) Prep QC Batch: MP13208

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1117654	<b>Date Sampled:</b>	03/11/09
<b>Lab Sample ID:</b>	M81204-14	<b>Date Received:</b>	03/11/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G88863.D	1	03/18/09	EL	n/a	n/a	MSG3589
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	1.1	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	20.6	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	14.9	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117654	<b>Date Sampled:</b>	03/11/09
<b>Lab Sample ID:</b>	M81204-14	<b>Date Received:</b>	03/11/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	2.3	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	6.5	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	20.4	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		79-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1117654	<b>Date Sampled:</b>	03/11/09
<b>Lab Sample ID:</b>	M81204-14	<b>Date Received:</b>	03/11/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	109%		80-120%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1117654**Lab Sample ID:** M81204-14**Date Sampled:** 03/11/09**Matrix:** AQ - Ground Water**Date Received:** 03/11/09**Method:** CT-ETPH SW846 3510C**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC25812.D	1	03/17/09	DG	03/13/09	OP18064	GBC1421
Run #2							

	Initial Volume	Final Volume
Run #1	930 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	1.24	0.086	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	89%		50-149%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	1117654		
<b>Lab Sample ID:</b>	M81204-14	<b>Date Sampled:</b>	03/11/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	03/11/09
<b>Method:</b>	SW846 8082 SW846 3510C	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BE15090.D	1	03/14/09	SL	03/12/09	OP18056	GBE1058
Run #2							

	Initial Volume	Final Volume
Run #1	750 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.33	ug/l	
11104-28-2	Aroclor 1221	ND	0.33	ug/l	
11141-16-5	Aroclor 1232	ND	0.33	ug/l	
53469-21-9	Aroclor 1242	ND	0.33	ug/l	
12672-29-6	Aroclor 1248	ND	0.33	ug/l	
11097-69-1	Aroclor 1254	ND	0.33	ug/l	
11096-82-5	Aroclor 1260	ND	0.33	ug/l	
37324-23-5	Aroclor 1262	ND	0.33	ug/l	
11100-14-4	Aroclor 1268	ND	0.33	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	93%		32-149%
877-09-8	Tetrachloro-m-xylene	109%		32-149%
2051-24-3	Decachlorobiphenyl	106%		30-150%
2051-24-3	Decachlorobiphenyl	102%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1117654UF**Lab Sample ID:** M81204-15**Matrix:** AQ - Ground Water**Date Sampled:** 03/11/09**Date Received:** 03/11/09**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond**Total Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	03/13/09	03/17/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Barium	< 200	200	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>4</sup>
Cadmium	29.3	4.0	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>4</sup>
Chromium	< 10	10	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>4</sup>
Copper	< 25	25	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>4</sup>
Lead	< 5.0	5.0	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>4</sup>
Mercury	< 0.20	0.20	ug/l	1	03/16/09	03/17/09 CF	SW846 7470A <sup>3</sup>	SW846 7470A <sup>5</sup>
Nickel	1510	40	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>4</sup>
Selenium	< 10	10	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>4</sup>
Silver	< 5.0	5.0	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>4</sup>
Zinc	26.8	20	ug/l	1	03/13/09	03/13/09 EAL	SW846 6010B <sup>1</sup>	SW846 3010A <sup>4</sup>

(1) Instrument QC Batch: MA10246

(2) Instrument QC Batch: MA10252

(3) Instrument QC Batch: MA10256

(4) Prep QC Batch: MP13195

(5) Prep QC Batch: MP13208

RL = Reporting Limit



IT'S ALL IN THE CHEMISTRY

## Misc. Forms

### Custody Documents and Other Forms

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Includes the following where applicable:

- Certification Exceptions
- Certification Exceptions (CT)
- Chain of Custody
- RCP Form
- Sample Tracking Chronicle

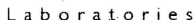
Parameter Certification Exceptions

Job Number: M81204  
Account: LEA Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

The following parameters included in this report are exceptions to NELAC certification.  
The certification status of each is indicated below.

Parameter	CAS#	Method	Mat	Certification Status
Aroclor 1262	37324-23-5	SW846 8082	AQ	Certified by SOP MGC204/GC-ECD
Aroclor 1268	11100-14-4	SW846 8082	AQ	Certified by SOP MGC204/GC-ECD

4.1  
4



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**ACCUTEST JOB #:**

1781204

**ACCUTEST QUOTE #:**

E #: KB2/2009-453

## 4.2

Page 2 of 3

3/3

# CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE  
MARLBOROUGH, MA 01752  
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #: M81204  
ACCUTEST QUOTE #: KB2/2009-453

CLIENT INFORMATION		FACILITY INFORMATION		ANALYTICAL INFORMATION										MATRIX CODES	
<b>NAME</b> LEA <b>ADDRESS</b> 100 Northwest Dr <b>CITY, STATE, ZIP</b> Plainville CT 06062 <b>SEND REPORT TO:</b> Robin McKinney <b>PHONE #</b> (860) 747-6281		<b>PROJECT NAME</b> Willow Pond GW Monitoring <b>LOCATION</b> P+L East Hartford <b>PROJECT NO.</b> 88UT 907 <b>FAX #</b>		<b>Matrix</b> VOC, Metals, PCBs, CT, EPAH <b>Matrix Codes</b>										DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE LIQ - LIQUID SOL - OTHER SOLID	
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION			MATRIX	# OF BOTTLES	PRESERVATION							LAB USE ONLY	
		DATE	TIME	SAMPLED BY:			NOI	NOH	HNO3	H2SO4	NONE	PRE			
-10	1117652	6/11/09	10:55	NE	GW	6	2			4	6	X	X	X	
-11	1117652 of		10:55			1			1			X			
-12	1117653		13:35			6	2			4	6	X	X	X	
-13	1117653 of		13:35			1			1			X			
-14	1117654		15:20			6	2			4	6	X	X	X	
-15	1117654 of		15:20	NE	GW	1			1			X			
DATA TURNAROUND INFORMATION		DATA DELIVERABLE INFORMATION				COMMENTS/REMARKS									
<input checked="" type="checkbox"/> 14 DAYS STANDARD <input type="checkbox"/> 7 DAYS RUSH <input type="checkbox"/> 48 HOUR EMERGENCY <input type="checkbox"/> OTHER 14 DAY TURNAROUND HARDCOPY, EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED		<input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> COMMERCIAL "B" <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> STATE FORMS <input type="checkbox"/> OTHER (SPECIFY)				Provide CT RCP Report use CT RCP Analytical list									
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY															
RELINQUISHED BY SAMPLER:	DATE TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:										
1. Not found	3/11/09 15:40	1. B. King	2.		2.										
RELINQUISHED BY:	DATE TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:										
3.		3.	4.		4.										
RELINQUISHED BY:	DATE TIME:	RECEIVED BY:	SEAL #	PRESERVE WHERE APPLICABLE	ON ICE	TEMPERATURE									
5.		5.		<input type="checkbox"/>	<input type="checkbox"/>	C									

4.2  
4

M81204: Chain of Custody

Page 3 of 3



# Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Laboratory Name: Accutest New England Client: Loureiro Eng. Associates

Project Location: UTC: 2009 Quarterly GW-Willow Pond Project Number: 88UT907

Sampling Date(s): 3/11/2009

Laboratory Sample ID(s): M81204-1, M81204-2, M81204-3, M81204-4, M81204-5, M81204-6, M81204-7, M81204-8, M81204-9, M81204-10, M81204-11, M81204-12, M81204-13, M81204-14, M81204-15

Methods: CT-ETPH, SW846 6010B, SW846 7470A, SW846 8082, SW846 8260B

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CTDEP method-specific Reasonable Confidence Protocol documents)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1A	Where all the method specified preservation and holding time requirements met?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1B	VPH and EPH methods only: Was the VPH or EPH method conducted without significant modifications (See section 11.3 of respective methods)	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
3	Were samples received at an appropriate temperature (<6° C)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
4	Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
5	a) Were reporting limits specified or referenced on the chain-of-custody?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
	b) Were these reporting limits met?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
7	Are project-specific matrix spikes and laboratory duplicates included in this data set?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Note: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or #1B is "No", the data package does not meet the requirements for "Reasonable Confidence".

I, the undersigned, attest under pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized

Signature:

Position: Lab Director

Printed Name: Reza Tand

Accutest New England

Date: 3/25/2009



## Internal Sample Tracking Chronicle

Loureiro Eng. Associates

Job No: M81204

UTC: 2009 Quarterly GW-Willow Pond

Project No: 88UT907

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M81204-1 1117655	Collected: 11-MAR-09 10:05	By: LC	Received: 11-MAR-09	By: JB		
M81204-1	SW846 8082	13-MAR-09 23:00	SL	12-MAR-09 FG		P8082RCP
M81204-1	CT-ETPH	17-MAR-09 11:35	DG	13-MAR-09 AJ		BCTTPH
M81204-1	SW846 8260B	18-MAR-09 19:39	EL			V8260RCP
M81204-2 1117655UF	Collected: 11-MAR-09 10:05	By: LC	Received: 11-MAR-09	By: JB		
M81204-2	SW846 6010B	13-MAR-09 14:35	EAL	13-MAR-09 EAL		AG,BA,CD,CR,CU,NI,PB,SE,ZN
M81204-2	SW846 7470A	13-MAR-09 17:28	MA	13-MAR-09 MA		HG
M81204-2	SW846 6010B	17-MAR-09 10:14	PY	13-MAR-09 EAL		AS
M81204-3 1117656	Collected: 11-MAR-09 12:30	By: LC	Received: 11-MAR-09	By: JB		
M81204-3	SW846 8082	13-MAR-09 23:37	SL	12-MAR-09 FG		P8082RCP
M81204-3	CT-ETPH	17-MAR-09 12:14	DG	13-MAR-09 AJ		BCTTPH
M81204-3	SW846 8260B	18-MAR-09 16:57	EL			V8260RCP
M81204-4 1117656UF	Collected: 11-MAR-09 12:30	By: LC	Received: 11-MAR-09	By: JB		
M81204-4	SW846 6010B	13-MAR-09 14:41	EAL	13-MAR-09 EAL		AG,BA,CD,CR,CU,NI,PB,SE,ZN
M81204-4	SW846 7470A	13-MAR-09 17:30	MA	13-MAR-09 MA		HG
M81204-4	SW846 6010B	17-MAR-09 10:18	PY	13-MAR-09 EAL		AS
M81204-5 1117657	Collected: 11-MAR-09 14:10	By: LC	Received: 11-MAR-09	By: JB		
M81204-5	SW846 8082	14-MAR-09 00:14	SL	12-MAR-09 FG		P8082RCP
M81204-5	CT-ETPH	17-MAR-09 12:53	DG	13-MAR-09 AJ		BCTTPH
M81204-5	SW846 8260B	18-MAR-09 17:24	EL			V8260RCP
M81204-6 1117657UF	Collected: 11-MAR-09 14:10	By: LC	Received: 11-MAR-09	By: JB		
M81204-6	SW846 6010B	13-MAR-09 14:47	EAL	13-MAR-09 EAL		AG,BA,CD,CR,CU,NI,PB,SE,ZN
M81204-6	SW846 7470A	13-MAR-09 17:32	MA	13-MAR-09 MA		HG

## Internal Sample Tracking Chronicle

Loureiro Eng. Associates

Job No: M81204

UTC: 2009 Quarterly GW-Willow Pond  
Project No: 88UT907

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M81204-6	SW846 6010B	17-MAR-09 10:23	PY	13-MAR-09 EAL	AS	
M81204-7 1117661	Collected: 11-MAR-09 10:05 By: LC		Received: 11-MAR-09 By: JB			
M81204-7	SW846 8082	14-MAR-09 01:28	SL	12-MAR-09 FG	P8082RCP	
M81204-7	CT-ETPH	17-MAR-09 13:33	DG	13-MAR-09 AJ	BCTTPH	
M81204-7	SW846 8260B	18-MAR-09 20:06	EL		V8260RCP	
M81204-8 1117661UF	Collected: 11-MAR-09 10:05 By: LC		Received: 11-MAR-09 By: JB			
M81204-8	SW846 6010B	13-MAR-09 14:52	EAL	13-MAR-09 EAL	AG,BA,CD,CR,CU,NI,PB,SE,ZN	
M81204-8	SW846 6010B	17-MAR-09 10:27	PY	13-MAR-09 EAL	AS	
M81204-8	SW846 7470A	17-MAR-09 13:30	CF	16-MAR-09 CF	HG	
M81204-9 1117660	Collected: 11-MAR-09 12:00 By: LC		Received: 11-MAR-09 By: JB			
M81204-9	SW846 8260B	18-MAR-09 17:51	EL		V8260RCP	
M81204-10 1117652	Collected: 11-MAR-09 10:55 By: LC		Received: 11-MAR-09 By: JB			
M81204-10	SW846 8082	14-MAR-09 02:05	SL	12-MAR-09 FG	P8082RCP	
M81204-10	CT-ETPH	17-MAR-09 14:12	DG	13-MAR-09 AJ	BCTTPH	
M81204-10	SW846 8260B	18-MAR-09 18:18	EL		V8260RCP	
M81204-11 1117652UF	Collected: 11-MAR-09 10:55 By: LC		Received: 11-MAR-09 By: JB			
M81204-11	SW846 6010B	13-MAR-09 14:58	EAL	13-MAR-09 EAL	AG,BA,CD,CR,CU,NI,PB,SE,ZN	
M81204-11	SW846 6010B	17-MAR-09 10:32	PY	13-MAR-09 EAL	AS	
M81204-11	SW846 7470A	17-MAR-09 13:32	CF	16-MAR-09 CF	HG	
M81204-12 1117653	Collected: 11-MAR-09 13:35 By: LC		Received: 11-MAR-09 By: JB			
M81204-12	SW846 8082	14-MAR-09 02:42	SL	12-MAR-09 FG	P8082RCP	
M81204-12	CT-ETPH	17-MAR-09 15:31	DG	13-MAR-09 AJ	BCTTPH	

## Internal Sample Tracking Chronicle

Loureiro Eng. Associates

Job No: M81204

UTC: 2009 Quarterly GW-Willow Pond  
Project No: 88UT907

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M81204-12	SW846 8260B	18-MAR-09 18:45	EL			V8260RCP
M81204-13 Collected: 11-MAR-09 13:35 By: LC Received: 11-MAR-09 By: JB 1117653UF						
M81204-13	SW846 6010B	13-MAR-09 15:04	EAL	13-MAR-09 EAL		AG,BA,CD,CR,CU,NI,PB,SE,ZN
M81204-13	SW846 6010B	17-MAR-09 10:36	PY	13-MAR-09 EAL		AS
M81204-13	SW846 7470A	17-MAR-09 13:34	CF	16-MAR-09 CF		HG
M81204-14 Collected: 11-MAR-09 15:20 By: LC Received: 11-MAR-09 By: JB 1117654						
M81204-14	SW846 8082	14-MAR-09 03:20	SL	12-MAR-09 FG		P8082RCP
M81204-14	CT-ETPH	17-MAR-09 16:10	DG	13-MAR-09 AJ		BCTTPH
M81204-14	SW846 8260B	18-MAR-09 19:12	EL			V8260RCP
M81204-15 Collected: 11-MAR-09 15:20 By: LC Received: 11-MAR-09 By: JB 1117654UF						
M81204-15	SW846 6010B	13-MAR-09 15:09	EAL	13-MAR-09 EAL		AG,BA,CD,CR,CU,NI,PB,SE,ZN
M81204-15	SW846 6010B	17-MAR-09 10:41	PY	13-MAR-09 EAL		AS
M81204-15	SW846 7470A	17-MAR-09 13:36	CF	16-MAR-09 CF		HG



## GC/MS Volatiles

5

### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

## Method Blank Summary

Page 1 of 3

**Job Number:** M81204

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG3589-MB	G88846.D	1	03/18/09	EL	n/a	n/a	MSG3589

The QC reported here applies to the following samples:

Method: SW846 8260B

M81204-1, M81204-3, M81204-5, M81204-7, M81204-9, M81204-10, M81204-12, M81204-14

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	

## Method Blank Summary

Page 2 of 3

**Job Number:** M81204

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG3589-MB	G88846.D	1	03/18/09	EL	n/a	n/a	MSG3589

The QC reported here applies to the following samples:

Method: SW846 8260B

M81204-1, M81204-3, M81204-5, M81204-7, M81204-9, M81204-10, M81204-12, M81204-14

CAS No.	Compound	Result	RL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

## Method Blank Summary

Page 3 of 3

**Job Number:** M81204  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG3589-MB	G88846.D	1	03/18/09	EL	n/a	n/a	MSG3589

The QC reported here applies to the following samples:

Method: SW846 8260B

M81204-1, M81204-3, M81204-5, M81204-7, M81204-9, M81204-10, M81204-12, M81204-14

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	99% 79-130%
2037-26-5	Toluene-D8	100% 80-120%
460-00-4	4-Bromofluorobenzene	111% 80-120%

# Blank Spike/Blank Spike Duplicate Summary

Page 1 of 3

Job Number: M81204

Account: LEA Loureiro Eng. Associates

Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG3589-BS	G88843A.D	1	03/18/09	EL	n/a	n/a	MSG3589
MSG3589-BSD	G88844.D	1	03/18/09	EL	n/a	n/a	MSG3589

The QC reported here applies to the following samples:

Method: SW846 8260B

M81204-1, M81204-3, M81204-5, M81204-7, M81204-9, M81204-10, M81204-12, M81204-14

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	62.5	125	51.5	103	19	30-150/25
107-13-1	Acrylonitrile	250	253	101	249	100	2	60-145/25
71-43-2	Benzene	50	47.0	94	46.5	93	1	78-120/25
108-86-1	Bromobenzene	50	48.0	96	48.9	98	2	76-120/25
75-27-4	Bromodichloromethane	50	52.8	106	52.1	104	1	70-137/25
75-25-2	Bromoform	50	50.7	101	50.2	100	1	66-136/25
74-83-9	Bromomethane	50	45.5	91	44.7	89	2	50-143/25
78-93-3	2-Butanone (MEK)	50	55.3	111	50.4	101	9	53-150/25
104-51-8	n-Butylbenzene	50	51.1	102	50.9	102	0	70-141/25
135-98-8	sec-Butylbenzene	50	49.4	99	49.7	99	1	74-130/25
98-06-6	tert-Butylbenzene	50	48.3	97	48.7	97	1	73-134/25
75-15-0	Carbon disulfide	50	49.9	100	49.2	98	1	56-147/25
56-23-5	Carbon tetrachloride	50	51.7	103	51.5	103	0	64-151/25
108-90-7	Chlorobenzene	50	47.8	96	47.2	94	1	75-120/25
75-00-3	Chloroethane	50	46.3	93	45.5	91	2	50-160/25
67-66-3	Chloroform	50	47.2	94	46.7	93	1	73-130/25
74-87-3	Chloromethane	50	51.9	104	50.7	101	2	40-150/25
95-49-8	o-Chlorotoluene	50	47.0	94	47.7	95	1	75-125/25
106-43-4	p-Chlorotoluene	50	47.8	96	48.3	97	1	73-127/25
96-12-8	1,2-Dibromo-3-chloropropane	50	42.9	86	41.7	83	3	53-149/25
124-48-1	Dibromochloromethane	50	52.8	106	52.0	104	2	77-130/25
106-93-4	1,2-Dibromoethane	50	49.1	98	48.7	97	1	70-134/25
95-50-1	1,2-Dichlorobenzene	50	50.1	100	49.2	98	2	76-122/25
541-73-1	1,3-Dichlorobenzene	50	49.9	100	49.2	98	1	73-124/25
106-46-7	1,4-Dichlorobenzene	50	48.6	97	47.7	95	2	73-123/25
75-71-8	Dichlorodifluoromethane	50	60.5	121	58.8	118	3	10-150/25
75-34-3	1,1-Dichloroethane	50	46.9	94	46.3	93	1	71-130/25
107-06-2	1,2-Dichloroethane	50	50.0	100	49.1	98	2	63-145/25
75-35-4	1,1-Dichloroethene	50	47.1	94	47.0	94	0	70-128/25
156-59-2	cis-1,2-Dichloroethene	50	45.8	92	45.8	92	0	70-123/25
156-60-5	trans-1,2-Dichloroethene	50	48.4	97	47.7	95	1	70-126/25
78-87-5	1,2-Dichloropropane	50	47.8	96	47.3	95	1	76-124/25
142-28-9	1,3-Dichloropropane	50	48.5	97	47.9	96	1	79-123/25
594-20-7	2,2-Dichloropropane	50	51.8	104	50.6	101	2	30-150/25
563-58-6	1,1-Dichloropropene	50	48.7	97	49.1	98	1	76-128/25
10061-01-5	cis-1,3-Dichloropropene	50	49.1	98	48.4	97	1	70-138/25



## Blank Spike/Blank Spike Duplicate Summary

Page 2 of 3

Job Number: M81204

Account: LEA Loureiro Eng. Associates

Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG3589-BS	G88843A.D	1	03/18/09	EL	n/a	n/a	MSG3589
MSG3589-BSD	G88844.D	1	03/18/09	EL	n/a	n/a	MSG3589

The QC reported here applies to the following samples:

Method: SW846 8260B

M81204-1, M81204-3, M81204-5, M81204-7, M81204-9, M81204-10, M81204-12, M81204-14

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	50	50.1	100	49.6	99	1	61-140/25
100-41-4	Ethylbenzene	50	48.7	97	48.7	97	0	79-123/25
76-13-1	Freon 113	50	51.6	103	51.6	103	0	66-141/25
87-68-3	Hexachlorobutadiene	50	48.6	97	47.0	94	3	60-148/25
591-78-6	2-Hexanone	50	57.8	116	51.5	103	12	52-146/25
98-82-8	Isopropylbenzene	50	48.7	97	50.0	100	3	75-128/25
99-87-6	p-Isopropyltoluene	50	50.0	100	50.4	101	1	73-130/25
1634-04-4	Methyl Tert Butyl Ether	50	48.5	97	47.2	94	3	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	53.3	107	51.7	103	3	60-145/25
74-95-3	Methylene bromide	50	48.2	96	47.5	95	1	76-127/25
75-09-2	Methylene chloride	50	49.7	99	48.5	97	2	70-130/25
91-20-3	Naphthalene	50	47.1	94	42.8	86	10	62-140/25
103-65-1	n-Propylbenzene	50	49.6	99	50.7	101	2	73-130/25
100-42-5	Styrene	50	50.2	100	49.5	99	1	70-129/25
630-20-6	1,1,1,2-Tetrachloroethane	50	50.0	100	49.2	98	2	81-126/25
79-34-5	1,1,2,2-Tetrachloroethane	50	45.9	92	46.7	93	2	63-142/25
127-18-4	Tetrachloroethene	50	48.7	97	49.0	98	1	70-130/25
109-99-9	Tetrahydrofuran	50	48.1	96	47.0	94	2	50-147/25
108-88-3	Toluene	50	48.3	97	48.2	96	0	77-121/25
110-57-6	Trans-1,4-Dichloro-2-Butene	50	40.6	81	39.4	79	3	30-150/25
87-61-6	1,2,3-Trichlorobenzene	50	40.7	81	37.5	75	8	70-130/25
120-82-1	1,2,4-Trichlorobenzene	50	44.5	89	41.6	83	7	64-136/25
71-55-6	1,1,1-Trichloroethane	50	49.2	98	48.1	96	2	70-142/25
79-00-5	1,1,2-Trichloroethane	50	48.8	98	48.9	98	0	79-123/25
79-01-6	Trichloroethene	50	49.2	98	48.8	98	1	72-128/25
75-69-4	Trichlorofluoromethane	50	46.0	92	45.5	91	1	54-151/25
96-18-4	1,2,3-Trichloropropane	50	47.6	95	47.9	96	1	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	50.9	102	51.6	103	1	73-130/25
108-67-8	1,3,5-Trimethylbenzene	50	49.3	99	50.3	101	2	73-130/25
75-01-4	Vinyl chloride	50	58.1	116	57.3	115	1	45-150/25
	m,p-Xylene	100	98.0	98	97.4	97	1	74-127/25
95-47-6	o-Xylene	50	49.0	98	49.0	98	0	79-125/25

Blank Spike/Blank Spike Duplicate Summary

Job Number: M81204  
Account: LEA Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG3589-BS	G88843A.D	1	03/18/09	EL	n/a	n/a	MSG3589
MSG3589-BSD	G88844.D	1	03/18/09	EL	n/a	n/a	MSG3589

The QC reported here applies to the following samples: Method: SW846 8260B

M81204-1, M81204-3, M81204-5, M81204-7, M81204-9, M81204-10, M81204-12, M81204-14

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	101%	100%	79-130%
2037-26-5	Toluene-D8	100%	101%	80-120%
460-00-4	4-Bromofluorobenzene	96%	97%	80-120%

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 3

**Job Number:** M81204  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M81197-4MS	G88866.D	5	03/18/09	EL	n/a	n/a	MSG3589
M81197-4MSD	G88867.D	5	03/18/09	EL	n/a	n/a	MSG3589
M81197-4	G88854.D	1	03/18/09	EL	n/a	n/a	MSG3589

The QC reported here applies to the following samples:

Method: SW846 8260B

M81204-1, M81204-3, M81204-5, M81204-7, M81204-9, M81204-10, M81204-12, M81204-14

CAS No.	Compound	M81197-4 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND	250	153	61	135	54	13	20-150/30
107-13-1	Acrylonitrile	ND	1250	1260	101	1180	94	7	55-150/30
71-43-2	Benzene	9.8	250	252	97	245	94	3	70-130/30
108-86-1	Bromobenzene	ND	250	246	98	244	98	1	71-121/30
75-27-4	Bromodichloromethane	ND	250	266	106	257	103	3	64-144/30
75-25-2	Bromoform	ND	250	193	77	185	74	4	57-133/30
74-83-9	Bromomethane	ND	250	235	94	228	91	3	40-146/30
78-93-3	2-Butanone (MEK)	ND	250	192	77	177	71	8	34-150/30
104-51-8	n-Butylbenzene	ND	250	238	95	241	96	1	61-142/30
135-98-8	sec-Butylbenzene	ND	250	243	97	243	97	0	70-130/30
98-06-6	tert-Butylbenzene	ND	250	242	97	241	96	0	70-137/30
75-15-0	Carbon disulfide	ND	250	223	89	222	89	0	42-151/30
56-23-5	Carbon tetrachloride	ND	250	264	106	258	103	2	56-158/30
108-90-7	Chlorobenzene	ND	250	240	96	237	95	1	72-122/30
75-00-3	Chloroethane	ND	250	246	98	238	95	3	46-169/30
67-66-3	Chloroform	ND	250	254	102	246	98	3	70-141/30
74-87-3	Chloromethane	ND	250	295	118	280	112	5	33-150/30
95-49-8	o-Chlorotoluene	ND	250	239	96	239	96	0	59-147/30
106-43-4	p-Chlorotoluene	ND	250	241	96	243	97	1	70-130/30
96-12-8	1,2-Dibromo-3-chloropropane	ND	250	207	83	199	80	4	47-156/30
124-48-1	Dibromochloromethane	ND	250	229	92	226	90	1	70-130/30
106-93-4	1,2-Dibromoethane	ND	250	252	101	242	97	4	65-138/30
95-50-1	1,2-Dichlorobenzene	ND	250	244	98	240	96	2	72-123/30
541-73-1	1,3-Dichlorobenzene	ND	250	246	98	244	98	1	70-124/30
106-46-7	1,4-Dichlorobenzene	ND	250	238	95	236	94	1	70-124/30
75-71-8	Dichlorodifluoromethane	ND	250	273	109	264	106	3	10-150/30
75-34-3	1,1-Dichloroethane	ND	250	256	102	245	98	4	70-141/30
107-06-2	1,2-Dichloroethane	ND	250	274	110	261	104	5	60-153/30
75-35-4	1,1-Dichloroethene	ND	250	240	96	233	93	3	63-134/30
156-59-2	cis-1,2-Dichloroethene	ND	250	245	98	237	95	3	64-130/30
156-60-5	trans-1,2-Dichloroethene	ND	250	251	100	244	98	3	70-130/30
78-87-5	1,2-Dichloropropane	ND	250	256	102	250	100	2	73-130/30
142-28-9	1,3-Dichloropropane	ND	250	251	100	241	96	4	75-127/30
594-20-7	2,2-Dichloropropane	ND	250	254	102	244	98	4	30-150/30
563-58-6	1,1-Dichloropropene	ND	250	252	101	245	98	3	73-134/30
10061-01-5	cis-1,3-Dichloropropene	ND	250	250	100	242	97	3	58-142/30

# Matrix Spike/Matrix Spike Duplicate Summary

Page 2 of 3

**Job Number:** M81204  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M81197-4MS	G88866.D	5	03/18/09	EL	n/a	n/a	MSG3589
M81197-4MSD	G88867.D	5	03/18/09	EL	n/a	n/a	MSG3589
M81197-4	G88854.D	1	03/18/09	EL	n/a	n/a	MSG3589

The QC reported here applies to the following samples:

Method: SW846 8260B

M81204-1, M81204-3, M81204-5, M81204-7, M81204-9, M81204-10, M81204-12, M81204-14

CAS No.	Compound	M81197-4 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	ND	250	252	101	246	98	2	53-143/30
100-41-4	Ethylbenzene	ND	250	243	97	240	96	1	60-138/30
76-13-1	Freon 113	ND	250	265	106	257	103	3	60-149/30
87-68-3	Hexachlorobutadiene	ND	250	220	88	222	89	1	54-135/30
591-78-6	2-Hexanone	ND	250	195	78	184	74	6	32-148/30
98-82-8	Isopropylbenzene	ND	250	248	99	248	99	0	70-130/30
99-87-6	p-Isopropyltoluene	ND	250	242	97	240	96	1	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND	250	261	104	250	100	4	54-144/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	250	274	110	259	104	6	53-151/30
74-95-3	Methylene bromide	ND	250	258	103	246	98	5	73-136/30
75-09-2	Methylene chloride	ND	250	266	106	259	104	3	64-140/30
91-20-3	Naphthalene	ND	250	155	62	176	70	13	48-143/30
103-65-1	n-Propylbenzene	ND	250	249	100	251	100	1	65-136/30
100-42-5	Styrene	ND	250	216	86	214	86	1	61-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND	250	253	101	249	100	2	78-128/30
79-34-5	1,1,2,2-Tetrachloroethane	ND	250	239	96	231	92	3	60-150/30
127-18-4	Tetrachloroethene	ND	250	246	98	240	96	2	70-130/30
109-99-9	Tetrahydrofuran	ND	250	267	107	239	96	11	40-150/30
108-88-3	Toluene	ND	250	246	98	242	97	2	66-134/30
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	250	181	72	175	70	3	20-150/30
87-61-6	1,2,3-Trichlorobenzene	ND	250	148	59	156	62	5	57-127/30
120-82-1	1,2,4-Trichlorobenzene	ND	250	175	70	185	74	6	57-130/30
71-55-6	1,1,1-Trichloroethane	ND	250	259	104	251	100	3	62-153/30
79-00-5	1,1,2-Trichloroethane	ND	250	256	102	247	99	4	77-127/30
79-01-6	Trichloroethene	ND	250	254	102	249	100	2	66-132/30
75-69-4	Trichlorofluoromethane	ND	250	239	96	230	92	4	48-161/30
96-18-4	1,2,3-Trichloropropane	ND	250	234	94	228	91	3	61-138/30
95-63-6	1,2,4-Trimethylbenzene	ND	250	241	96	242	97	0	54-143/30
108-67-8	1,3,5-Trimethylbenzene	ND	250	231	92	231	92	0	62-139/30
75-01-4	Vinyl chloride	ND	250	309	124	297	119	4	38-150/30
	m,p-Xylene	ND	500	482	96	473	95	2	55-142/30
95-47-6	o-Xylene	ND	250	243	97	237	95	3	65-136/30

## Matrix Spike/Matrix Spike Duplicate Summary

Page 3 of 3

**Job Number:** M81204

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M81197-4MS	G88866.D	5	03/18/09	EL	n/a	n/a	MSG3589
M81197-4MSD	G88867.D	5	03/18/09	EL	n/a	n/a	MSG3589
M81197-4	G88854.D	1	03/18/09	EL	n/a	n/a	MSG3589

The QC reported here applies to the following samples:

Method: SW846 8260B

M81204-1, M81204-3, M81204-5, M81204-7, M81204-9, M81204-10, M81204-12, M81204-14

CAS No.	Surrogate Recoveries	MS	MSD	M81197-4	Limits
1868-53-7	Dibromofluoromethane	105%	103%	99%	79-130%
2037-26-5	Toluene-D8	101%	100%	98%	80-120%
460-00-4	4-Bromofluorobenzene	97%	98%	110%	80-120%

# Volatile Internal Standard Area Summary

Page 1 of 1

**Job Number:** M81204  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Check Std:** MSG3589-CC3531  
**Lab File ID:** G88843.D  
**Instrument ID:** GCMSG  
**Injection Date:** 03/18/09  
**Injection Time:** 10:06  
**Method:** SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	181524	9.05	264719	9.92	142121	13.17	118462	15.73	64366	6.65
Upper Limit <sup>a</sup>	363048	9.55	529438	10.42	284242	13.67	236924	16.23	128732	7.15
Lower Limit <sup>b</sup>	90762	8.55	132360	9.42	71061	12.67	59231	15.23	32183	6.15

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSG3589-BS	181524	9.05	264719	9.92	142121	13.17	118462	15.73	64366	6.65
MSG3589-BSD	190320	9.05	275299	9.92	147599	13.17	118684	15.73	67344	6.65
MSG3589-MB	181821	9.05	261410	9.92	133419	13.17	89097	15.73	62003	6.67
GP10203-LB1	185366	9.05	267574	9.92	135119	13.18	89684	15.74	56281	6.67
ZZZZZZ	186138	9.05	270192	9.92	135956	13.17	89049	15.73	55102	6.66
ZZZZZZ	184019	9.05	268024	9.92	134371	13.18	87306	15.74	56348	6.67
ZZZZZZ	179176	9.05	262352	9.92	129795	13.17	85516	15.74	52779	6.67
ZZZZZZ	178843	9.05	262065	9.92	130216	13.17	85483	15.73	53862	6.67
GP10203-LS1	178707	9.05	262381	9.92	141235	13.17	118227	15.73	58793	6.65
ZZZZZZ	182314	9.05	262962	9.92	135605	13.17	110587	15.73	58895	6.66
M81197-4	183296	9.05	263167	9.92	131864	13.18	88255	15.74	64745	6.67
ZZZZZZ	185589	9.05	272383	9.92	135346	13.18	93148	15.74	62468	6.67
ZZZZZZ	182589	9.05	262096	9.92	134833	13.17	103874	15.73	63758	6.66
ZZZZZZ	185013	9.05	267887	9.92	134744	13.18	87823	15.73	63976	6.66
M81204-3	182276	9.05	264776	9.92	132788	13.17	87106	15.74	59629	6.67
M81204-5	176650	9.05	256086	9.92	129182	13.17	84755	15.73	61252	6.67
M81204-9	176429	9.05	255954	9.92	129375	13.18	85985	15.74	58119	6.67
M81204-10	175862	9.05	255082	9.92	127470	13.17	80591	15.73	55797	6.67
M81204-12	172912	9.05	251201	9.92	128752	13.17	81167	15.74	55577	6.68
M81204-14	176290	9.05	258501	9.92	130804	13.17	89629	15.73	69011	6.66
M81204-1	175806	9.05	255943	9.92	130710	13.17	86886	15.74	63286	6.66
M81204-7	173152	9.05	257231	9.92	132800	13.17	85577	15.73	65069	6.67
M81197-4MS	179818	9.05	265526	9.92	145736	13.17	118542	15.73	63640	6.66
M81197-4MSD	186407	9.05	273714	9.92	149116	13.17	118788	15.73	59475	6.66

**IS 1** = Pentafluorobenzene  
**IS 2** = 1,4-Difluorobenzene  
**IS 3** = Chlorobenzene-D5  
**IS 4** = 1,4-Dichlorobenzene-d4  
**IS 5** = Tert Butyl Alcohol-D9

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

# Volatile Surrogate Recovery Summary

Page 1 of 1

**Job Number:** M81204

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Method:** SW846 8260B

**Matrix:** AQ

**Samples and QC shown here apply to the above method**

Lab Sample ID	Lab File ID	S1	S2	S3
M81204-1	G88864.D	104.0	99.0	110.0
M81204-3	G88858.D	102.0	99.0	112.0
M81204-5	G88859.D	102.0	98.0	111.0
M81204-7	G88865.D	105.0	99.0	113.0
M81204-9	G88860.D	102.0	100.0	111.0
M81204-10	G88861.D	101.0	97.0	113.0
M81204-12	G88862.D	103.0	96.0	113.0
M81204-14	G88863.D	103.0	99.0	109.0
M81197-4MS	G88866.D	105.0	101.0	97.0
M81197-4MSD	G88867.D	103.0	100.0	98.0
MSG3589-BS	G88843A.D	101.0	100.0	96.0
MSG3589-BSD	G88844.D	100.0	101.0	97.0
MSG3589-MB	G88846.D	99.0	100.0	111.0

## Surrogate Compounds

## Recovery Limits

**S1** = Dibromofluoromethane

79-130%

**S2** = Toluene-D8

80-120%

**S3** = 4-Bromofluorobenzene

80-120%



## GC Semi-volatiles

### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries



## Method Blank Summary

Page 1 of 1

**Job Number:** M81204

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP18064-MB	BC25800.D	1	03/16/09	DG	03/13/09	OP18064	GBC1421

The QC reported here applies to the following samples:

Method: CT-ETPH

M81204-1, M81204-3, M81204-5, M81204-7, M81204-10, M81204-12, M81204-14

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	ND	0.080	mg/l	

CAS No.	Surrogate Recoveries	Limits
3386-33-2	1-Chlorooctadecane	69% 50-149%

## Method Blank Summary

Page 1 of 1

**Job Number:** M81204

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP18056-MB	BE15076.D	1	03/13/09	SL	03/12/09	OP18056	GBE1058

The QC reported here applies to the following samples:

Method: SW846 8082

M81204-1, M81204-3, M81204-5, M81204-7, M81204-10, M81204-12, M81204-14

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	ug/l	

CAS No.	Surrogate Recoveries	Limits	
877-09-8	Tetrachloro-m-xylene	99%	32-149%
877-09-8	Tetrachloro-m-xylene	114%	32-149%
2051-24-3	Decachlorobiphenyl	95%	30-150%
2051-24-3	Decachlorobiphenyl	94%	30-150%

## Blank Spike Summary

Page 1 of 1

**Job Number:** M81204

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP18064-BS	BC25801C.D1		03/17/09	DG	03/13/09	OP18064	GBC1421

The QC reported here applies to the following samples:

Method: CT-ETPH

M81204-1, M81204-3, M81204-5, M81204-7, M81204-10, M81204-12, M81204-14

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	CT-DRO (C9-C36)	0.7	0.568	81	60-120

CAS No.	Surrogate Recoveries	BSP	Limits
3386-33-2	1-Chlorooctadecane	78%	50-149%

6.2.1

6

## Blank Spike Summary

Page 1 of 1

**Job Number:** M81204

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP18056-BS	BE15077.D	1	03/13/09	SL	03/12/09	OP18056	GBE1058

The QC reported here applies to the following samples:

Method: SW846 8082

M81204-1, M81204-3, M81204-5, M81204-7, M81204-10, M81204-12, M81204-14

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
12674-11-2	Aroclor 1016	2	1.9	95	55-140
11104-28-2	Aroclor 1221		ND		40-140
11141-16-5	Aroclor 1232		ND		40-140
53469-21-9	Aroclor 1242		ND		40-140
12672-29-6	Aroclor 1248		ND		40-140
11097-69-1	Aroclor 1254		ND		40-140
11096-82-5	Aroclor 1260	2	2.1	105	61-140
37324-23-5	Aroclor 1262		ND		40-140
11100-14-4	Aroclor 1268		ND		40-140

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	103%	32-149%
877-09-8	Tetrachloro-m-xylene	115%	32-149%
2051-24-3	Decachlorobiphenyl	100%	30-150%
2051-24-3	Decachlorobiphenyl	96%	30-150%

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

**Job Number:** M81204

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP18064-MS	BC25802.D	1	03/17/09	DG	03/13/09	OP18064	GBC1421
OP18064-MSD	BC25803.D	1	03/17/09	DG	03/13/09	OP18064	GBC1421
M81179-16	BC25804.D	1	03/17/09	DG	03/13/09	OP18064	GBC1421

The QC reported here applies to the following samples:

Method: CT-ETPH

M81204-1, M81204-3, M81204-5, M81204-7, M81204-10, M81204-12, M81204-14

CAS No.	Compound	M81179-16 mg/l	Spike Q	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	CT-DRO (C9-C36)	ND	0.7	0.600	86	0.562	80	7	50-129/26

CAS No.	Surrogate Recoveries	MS	MSD	M81179-16	Limits
3386-33-2	1-Chlorooctadecane	76%	75%	68%	50-149%

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

**Job Number:** M81204

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP18056-MS	BE15078.D	1	03/13/09	SL	03/12/09	OP18056	GBE1058
OP18056-MSD	BE15079.D	1	03/13/09	SL	03/12/09	OP18056	GBE1058
M81179-12	BE15080.D	1	03/13/09	SL	03/12/09	OP18056	GBE1058

The QC reported here applies to the following samples:

Method: SW846 8082

M81204-1, M81204-3, M81204-5, M81204-7, M81204-10, M81204-12, M81204-14

CAS No.	Compound	M81179-12 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	ND	2		2.0	100	2.0	100	0	53-140/36
11104-28-2	Aroclor 1221	ND			ND		ND		nc	40-140/50
11141-16-5	Aroclor 1232	ND			ND		ND		nc	40-140/50
53469-21-9	Aroclor 1242	ND			ND		ND		nc	40-140/50
12672-29-6	Aroclor 1248	ND			ND		ND		nc	40-140/50
11097-69-1	Aroclor 1254	ND			ND		ND		nc	40-140/50
11096-82-5	Aroclor 1260	ND	2		2.2	110	2.2	110	0	54-140/27
37324-23-5	Aroclor 1262	ND			ND		ND		nc	40-140/20
11100-14-4	Aroclor 1268	ND			ND		ND		nc	40-140/50

CAS No.	Surrogate Recoveries	MS	MSD	M81179-12	Limits
877-09-8	Tetrachloro-m-xylene	80%	103%	84%	32-149%
877-09-8	Tetrachloro-m-xylene	112%	113%	104%	32-149%
2051-24-3	Decachlorobiphenyl	97%	90%	87%	30-150%
2051-24-3	Decachlorobiphenyl	90%	87%	79%	30-150%

# Semivolatile Surrogate Recovery Summary

Page 1 of 1

**Job Number:** M81204

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Method:** CT-ETPH

**Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 <sup>a</sup>
M81204-1	BC25805.D	83.0
M81204-3	BC25806.D	77.0
M81204-5	BC25807.D	79.0
M81204-7	BC25808.D	79.0
M81204-10	BC25809.D	82.0
M81204-12	BC25811.D	82.0
M81204-14	BC25812.D	89.0
OP18064-BS	BC25801C.D	78.0
OP18064-MB	BC25800.D	69.0
OP18064-MS	BC25802.D	76.0
OP18064-MSD	BC25803.D	75.0

Surrogate Compounds	Recovery Limits
------------------------	--------------------

S1 = 1-Chlorooctadecane	50-149%
-------------------------	---------

(a) Recovery from GC signal #1

6.4.1

6

## Semivolatile Surrogate Recovery Summary

Page 1 of 1

**Job Number:** M81204

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Method:** SW846 8082

**Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 <sup>a</sup>	S1 <sup>b</sup>	S2 <sup>a</sup>	S2 <sup>b</sup>
M81204-1	BE15083.D	86.0	102.0	103.0	99.0
M81204-3	BE15084.D	101.0	111.0	113.0	117.0
M81204-5	BE15085.D	90.0	101.0	111.0	112.0
M81204-7	BE15087.D	92.0	106.0	105.0	104.0
M81204-10	BE15088.D	92.0	101.0	110.0	116.0
M81204-12	BE15089.D	95.0	106.0	108.0	105.0
M81204-14	BE15090.D	93.0	109.0	106.0	102.0
OP18056-BS	BE15077.D	103.0	115.0	100.0	96.0
OP18056-MB	BE15076.D	99.0	114.0	95.0	94.0
OP18056-MS	BE15078.D	80.0	112.0	97.0	90.0
OP18056-MSD	BE15079.D	103.0	113.0	90.0	87.0

### Surrogate Compounds

### Recovery Limits

**S1** = Tetrachloro-m-xylene

32-149%

**S2** = Decachlorobiphenyl

30-150%

(a) Recovery from GC signal #1

(b) Recovery from GC signal #2

6.4.2

6





## Metals Analysis

### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: M81204  
Account: LEA - Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP13195  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date: 03/13/09

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	14	31		
Antimony	6.0	2.9	3		
Arsenic	10	2.7	3.2	-0.76	<10
Barium	200	.64	1.2	1.8	<200
Beryllium	4.0	.17	.3		
Boron	100	2.3	4.8		
Cadmium	4.0	.24	.3	0.0	<4.0
Calcium	5000	4.7	40		
Chromium	10	.51	1.4	0.19	<10
Cobalt	50	.76	1		
Copper	25	1.1	1.8	0.31	<25
Iron	100	11	29		
Lead	5.0	1.3	1.8	-0.46	<5.0
Magnesium	5000	8	10		
Manganese	15	.17	1.3		
Molybdenum	100	.5	1.4		
Nickel	40	.65	1	1.9	<40
Potassium	5000	25	31		
Selenium	10	1.6	3.3	-1.5	<10
Silver	5.0	.64	.7	-0.44	<5.0
Sodium	5000	99	210		
Strontium	10	.12	.3		
Thallium	10	2	4.5		
Tin	100	1.6	9.9		
Titanium	50	4.1	5.1		
Tungsten	100	5.4	7		
Vanadium	30	.65	3.5		
Zinc	20	1.1	1.3	1.4	<20

Associated samples MP13195: M81204-2, M81204-4, M81204-6, M81204-8, M81204-11, M81204-13, M81204-15

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: M81204  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP13195  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 03/13/09 03/13/09

Metal	M81205-7 Original MS		Spikelot MPICP	% Rec	QC Limits	M81205-7 Original DUP		RPD	QC Limits
Aluminum									
Antimony									
Arsenic	0.0	523	500	104.6	75-125	0.0	0.0	NC	0-20
Barium	82.7	2120	2000	101.9	75-125	82.7	81.8	1.1	0-20
Beryllium									
Boron									
Cadmium	0.26	504	500	100.7	75-125	0.26	0.0	200.0(a)	0-20
Calcium									
Chromium	0.0	522	500	104.4	75-125	0.0	0.0	NC	0-20
Cobalt									
Copper	5.3	496	500	98.1	75-125	5.3	5.1	3.8	0-20
Iron									
Lead	0.0	1040	1000	104.0	75-125	0.0	0.0	NC	0-20
Magnesium									
Manganese									
Molybdenum									
Nickel	4.5	492	500	97.5	75-125	4.5	3.7	19.5	0-20
Potassium									
Selenium	0.0	533	500	106.6	75-125	0.0	0.0	NC	0-20
Silver	0.0	201	200	100.5	75-125	0.0	0.0	NC	0-20
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Tungsten									
Vanadium									
Zinc	28.9	534	500	101.0	75-125	28.9	28.8	0.3	0-20

Associated samples MP13195: M81204-2, M81204-4, M81204-6, M81204-8, M81204-11, M81204-13, M81204-15

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) RPD acceptable due to low duplicate and sample concentrations.

## SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: M81204  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP13195  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date:

03/13/09

03/13/09

Metal	BSP Result	Spikelot MPICP	% Rec	QC Limits	BSD Result	Spikelot MPICP	% Rec	BSD RPD	QC Limit
Aluminum									
Antimony									
Arsenic	522	500	104.4	80-120	515	500	103.0	1.4	20
Barium	2020	2000	101.0	80-120	2000	2000	100.0	1.0	20
Beryllium									
Boron									
Cadmium	503	500	100.6	80-120	500	500	100.0	0.6	20
Calcium									
Chromium	519	500	103.8	80-120	517	500	103.4	0.4	20
Cobalt									
Copper	489	500	97.8	80-120	477	500	95.4	2.5	20
Iron									
Lead	1030	1000	103.0	80-120	1030	1000	103.0	0.0	20
Magnesium									
Manganese									
Molybdenum									
Nickel	486	500	97.2	80-120	483	500	96.6	0.6	20
Potassium									
Selenium	532	500	106.4	80-120	527	500	105.4	0.9	20
Silver	199	200	99.5	80-120	197	200	98.5	1.0	20
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Tungsten									
Vanadium									
Zinc	506	500	101.2	80-120	503	500	100.6	0.6	20

Associated samples MP13195: M81204-2, M81204-4, M81204-6, M81204-8, M81204-11, M81204-13, M81204-15

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

# SERIAL DILUTION RESULTS SUMMARY

Login Number: M81204  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP13195  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 03/13/09

Metal	M81205-7 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	0.00	0.00	NC	0-10
Barium	82.7	85.0	2.8	0-10
Beryllium				
Boron				
Cadmium	0.260	1.60	515.4(a)	0-10
Calcium				
Chromium	0.00	0.00	NC	0-10
Cobalt				
Copper	5.28	10.6	100.2(a)	0-10
Iron				
Lead	0.00	0.00	NC	0-10
Magnesium				
Manganese				
Molybdenum				
Nickel	4.46	4.34	2.7	0-10
Potassium				
Selenium	0.00	0.00	NC	0-10
Silver	0.00	0.00	NC	0-10
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc	28.9	29.7	2.6	0-10

Associated samples MP13195: M81204-2, M81204-4, M81204-6, M81204-8, M81204-11, M81204-13, M81204-15

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: M81204  
Account: LEA - Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP13200  
Matrix Type: AQUEOUS

Methods: SW846 7470A  
Units: ug/l

Prep Date: 03/13/09

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.20	.019	.033	-0.015	<0.20

Associated samples MP13200: M81204-2, M81204-4, M81204-6

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

7.2.1

7

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: M81204  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP13200  
 Matrix Type: AQUEOUS

Methods: SW846 7470A  
 Units: ug/l

Prep Date: 03/13/09 03/13/09

Metal	M81183-4 Original MS		Spikelot HGRWS1 % Rec		QC Limits	M81183-4 Original DUP		RPD	QC Limits
Mercury	0.0	3.1	3	103.3	75-125	0.0	0.0	NC	0-20

Associated samples MP13200: M81204-2, M81204-4, M81204-6

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

7.2.2

7

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: M81204  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP13200  
 Matrix Type: AQUEOUS

Methods: SW846 7470A  
 Units: ug/l

Prep Date: 03/13/09 03/13/09

Metal	BSP Result	Spikelot HGRWS1	% Rec	QC Limits	BSD Result	Spikelot HGRWS1	% Rec	BSD RPD	QC Limit
Mercury	2.9	3	96.7	80-120	3.0	3	100.0	3.4	20

Associated samples MP13200: M81204-2, M81204-4, M81204-6

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (anr) Analyte not requested



BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: M81204  
Account: LEA - Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP13208  
Matrix Type: AQUEOUS

Methods: SW846 7470A  
Units: ug/l

Prep Date: 03/16/09

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.20	.035	.048	-0.076	<0.20

Associated samples MP13208: M81204-8, M81204-11, M81204-13, M81204-15

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

7.3.1

7

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: M81204  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP13208  
 Matrix Type: AQUEOUS

Methods: SW846 7470A  
 Units: ug/l

Prep Date: 03/16/09 03/16/09

Metal	M81231-4 Original MS		Spikelot HGRWS1 % Rec		QC Limits	M81231-4 Original DUP		RPD	QC Limits
Mercury	0.0	3.0	3	100.0	75-125	0.0	0.0	NC	0-20

Associated samples MP13208: M81204-8, M81204-11, M81204-13, M81204-15

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: M81204  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP13208  
 Matrix Type: AQUEOUS

Methods: SW846 7470A  
 Units: ug/l

Prep Date: 03/16/09 03/16/09

Metal	BSP Result	Spikelot HGRWS1	% Rec	QC Limits	BSD Result	Spikelot HGRWS1	% Rec	BSD RPD	QC Limit
Mercury	3.1	3	103.3	80-120	3.2	3	106.7	3.2	20

Associated samples MP13208: M81204-8, M81204-11, M81204-13, M81204-15

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (anr) Analyte not requested



07/07/09

IT'S ALL IN THE CHEMISTRY

07/07/09

## Technical Report for

Loureiro Eng. Associates

UTC: Willow Brook & Pond 2008 Monitoring

88UT907

Accutest Job Number: M83376

Sampling Date: 06/04/09

Report to:

Loureiro Eng. Associates

rlmckinney@loureiro.com

ATTN: Robin McKinney

Total number of pages in report: **103**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

  
Reza Pand  
Lab Director

Client Service contact: Kristen Blanchard 508-481-6200

Certifications: MA (M-MA136) CT (PH-0109) NH (2502) RI (00071) ME (MA0136) FL (E87579)  
NY (11791) NJ (MA926) PA (68-01121) NC (653) IL (200018) NAVY USACE

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# Table of Contents

-1-

<b>Section 1: Sample Summary .....</b>	<b>3</b>
<b>Section 2: Case Narrative/Conformance Summary .....</b>	<b>5</b>
<b>Section 3: Sample Results .....</b>	<b>7</b>
<b>3.1:</b> M83376-1: 1123432 .....	8
<b>3.2:</b> M83376-2: 1123432UF .....	13
<b>3.3:</b> M83376-3: 1123433 .....	14
<b>3.4:</b> M83376-4: 1123433UF .....	19
<b>3.5:</b> M83376-5: 1123446 .....	20
<b>3.6:</b> M83376-6: 1123429 .....	23
<b>3.7:</b> M83376-7: 1123429UF .....	28
<b>3.8:</b> M83376-8: 1123430 .....	29
<b>3.9:</b> M83376-9: 1123430UF .....	34
<b>3.10:</b> M83376-10: 1123431 .....	35
<b>3.11:</b> M83376-11: 1123431UF .....	40
<b>3.12:</b> M83376-12: 1123426 .....	41
<b>3.13:</b> M83376-13: 1123426UF .....	46
<b>3.14:</b> M83376-14: 1123428 .....	47
<b>3.15:</b> M83376-15: 1123428UF .....	52
<b>Section 4: Misc. Forms .....</b>	<b>53</b>
<b>4.1:</b> Certification Exceptions .....	54
<b>4.2:</b> Chain of Custody .....	55
<b>4.3:</b> RCP Form .....	61
<b>4.4:</b> Sample Tracking Chronicle .....	62
<b>Section 5: GC/MS Volatiles - QC Data Summaries .....</b>	<b>65</b>
<b>5.1:</b> Method Blank Summary .....	66
<b>5.2:</b> Blank Spike Summary .....	72
<b>5.3:</b> Matrix Spike/Matrix Spike Duplicate Summary .....	78
<b>5.4:</b> Internal Standard Area Summaries .....	84
<b>5.5:</b> Surrogate Recovery Summaries .....	86
<b>Section 6: GC Semi-volatiles - QC Data Summaries .....</b>	<b>87</b>
<b>6.1:</b> Method Blank Summary .....	88
<b>6.2:</b> Blank Spike Summary .....	90
<b>6.3:</b> Matrix Spike/Matrix Spike Duplicate Summary .....	92
<b>6.4:</b> Surrogate Recovery Summaries .....	94
<b>Section 7: Metals Analysis - QC Data Summaries .....</b>	<b>96</b>
<b>7.1:</b> Prep QC MP13617: Hg .....	97
<b>7.2:</b> Prep QC MP13622: As,Ba,Cd,Cr,Cu,Pb,Ni,Se,Ag,Zn .....	100

## Sample Summary

Loureiro Eng. Associates

Job No: M83376

UTC: Willow Brook & Pond 2008 Monitoring  
Project No: 88UT907

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
M83376-1	06/04/09	12:00 SK	06/04/09	AQ	Ground Water	1123432
M83376-2	06/04/09	12:00 SK	06/04/09	AQ	Ground Water	1123432UF
M83376-3	06/04/09	14:45 SK	06/04/09	AQ	Ground Water	1123433
M83376-4	06/04/09	14:45 SK	06/04/09	AQ	Ground Water	1123433UF
M83376-5	06/04/09	09:00 SK	06/04/09	AQ	Ground Water	1123446
M83376-6	06/04/09	10:35 SK	06/04/09	AQ	Ground Water	1123429
M83376-7	06/04/09	10:35 SK	06/04/09	AQ	Ground Water	1123429UF
M83376-8	06/04/09	12:30 SK	06/04/09	AQ	Ground Water	1123430
M83376-9	06/04/09	12:30 SK	06/04/09	AQ	Ground Water	1123430UF
M83376-10	06/04/09	14:35 SK	06/04/09	AQ	Ground Water	1123431
M83376-11	06/04/09	14:35 SK	06/04/09	AQ	Ground Water	1123431UF
M83376-12	06/04/09	12:50 SK	06/04/09	AQ	Ground Water	1123426
M83376-13	06/04/09	12:50 SK	06/04/09	AQ	Ground Water	1123426UF



**Sample Summary**  
(continued)

Loureiro Eng. Associates

**Job No:** M83376

UTC:Willow Brook & Pond 2008 Monitoring  
Project No: 88UT907

Sample Number	Collected		Time By	Received	Matrix		Client Sample ID
	Date				Code	Type	
M83376-14	06/04/09	15:20	SK	06/04/09	AQ	Ground Water	1123428
M83376-15	06/04/09	15:20	SK	06/04/09	AQ	Ground Water	1123428UF

## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Loureiro Eng. Associates

**Job No** M83376

**Site:** UTC:Willow Brook & Pond 2008 Monitoring

**Report Date** 6/18/2009 4:33:14 PM

15 Sample(s) were collected on 06/04/2009 and were received at Accutest on 06/04/2009 properly preserved, at 2.1 Deg. C and intact. These Samples received an Accutest job number of M83376. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### Volatiles by GCMS By Method SW846 8260B

**Matrix** AQ

**Batch ID:** MSN1279

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- MS for Carbon tetrachloride is outside control limits. Associated samples are non-detect for this compound.
- MSN1279-BS for Carbon tetrachloride: Outside control limits. Associated samples are non-detect for this compound.
- Initial calibration verification standard MSN1271-ICV1271 for acetone exceed 35% Difference.
- Continuing calibration check standard for chloromethane, carbon tetrachloride exceed 30% Difference. This check standard met RCP criteria.

**Matrix** AQ

**Batch ID:** MSP1243

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M83210-3MS, M83210-3MSD were used as the QC samples indicated.
- MS/MSD Recovery(s) for Acetone are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Initial calibration standard in batch MSP1243 for acetone is employed quadratic regression
- Continuing calibration check standard for acetone exceed 30% Difference. This check standard met RCP criteria.

### Extractables by GC By Method CT-ETPH 7/06

**Matrix** AQ

**Batch ID:** OP18693

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M83410-5MS, M83410-5MSD were used as the QC samples indicated.

### Extractables by GC By Method SW846 8082

**Matrix** AQ

**Batch ID:** OP18709

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M83410-9MS, M83410-9MSD were used as the QC samples indicated.



## Metals By Method SW846 6010B

**Matrix** AQ

**Batch ID:** MP13622

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M83376-4DUP, M83376-4MS, M83376-4SDL, M83376-4DUP were used as the QC samples for metals.
- RPD(s) for Duplicate for Cadmium, Lead, Selenium are outside control limits for sample MP13622-D1. RPD acceptable due to low duplicate and sample concentrations.
- RPD(s) for Serial Dilution for Cadmium, Chromium, Copper, Selenium, Zinc are outside control limits for sample MP13622-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- Only selected metals requested.

## Metals By Method SW846 7470A

**Matrix** AQ

**Batch ID:** MP13617

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M83316-6DUP, M83316-6MS were used as the QC samples for metals.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety. The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report (M83376).



## Sample Results

## Report of Analysis

## Report of Analysis

<b>Client Sample ID:</b>	1123432		
<b>Lab Sample ID:</b>	M83376-1	<b>Date Sampled:</b>	06/04/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/04/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC:Willow Brook & Pond 2008 Monitoring		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P37571.D	1	06/09/09	AMY	n/a	n/a	MSP1243
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123432	<b>Date Sampled:</b>	06/04/09
<b>Lab Sample ID:</b>	M83376-1	<b>Date Received:</b>	06/04/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: Willow Brook & Pond 2008 Monitoring		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	1.5	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123432	<b>Date Sampled:</b>	06/04/09
<b>Lab Sample ID:</b>	M83376-1	<b>Date Received:</b>	06/04/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: Willow Brook & Pond 2008 Monitoring		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	100%		70-130%
460-00-4	4-Bromofluorobenzene	102%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1123432  
**Lab Sample ID:** M83376-1  
**Matrix:** AQ - Ground Water  
**Method:** CT-ETPH 7/06 SW846 3510C  
**Project:** UTC:Willow Brook & Pond 2008 Monitoring

**Date Sampled:** 06/04/09  
**Date Received:** 06/04/09  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC27952.D	1	06/17/09	DG	06/09/09	OP18693	GBC1514
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	0.132	0.084	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	67%		50-149%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123432						
<b>Lab Sample ID:</b>	M83376-1					<b>Date Sampled:</b>	06/04/09
<b>Matrix:</b>	AQ - Ground Water					<b>Date Received:</b>	06/04/09
<b>Method:</b>	SW846 8082 SW846 3510C					<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC:Willow Brook & Pond 2008 Monitoring						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF68557.D	1	06/16/09	SL	06/10/09	OP18709	GEF3164
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	5.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.26	ug/l	
11104-28-2	Aroclor 1221	ND	0.26	ug/l	
11141-16-5	Aroclor 1232	ND	0.26	ug/l	
53469-21-9	Aroclor 1242	ND	0.26	ug/l	
12672-29-6	Aroclor 1248	ND	0.26	ug/l	
11097-69-1	Aroclor 1254	ND	0.26	ug/l	
11096-82-5	Aroclor 1260	ND	0.26	ug/l	
37324-23-5	Aroclor 1262	ND	0.26	ug/l	
11100-14-4	Aroclor 1268	ND	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	93%		30-150%
877-09-8	Tetrachloro-m-xylene	91%		30-150%
2051-24-3	Decachlorobiphenyl	60%		30-150%
2051-24-3	Decachlorobiphenyl	60%		30-150%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 1123432UF

Lab Sample ID: M83376-2

Date Sampled: 06/04/09

Matrix: AQ - Ground Water

Date Received: 06/04/09

Percent Solids: n/a

Project: UTC: Willow Brook &amp; Pond 2008 Monitoring

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	10.8	4.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Barium	< 200	200	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Cadmium	< 4.0	4.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Chromium	< 10	10	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Copper	< 25	25	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Lead	< 5.0	5.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Mercury	< 0.20	0.20	ug/l	1	06/09/09	06/10/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>3</sup>
Nickel	< 40	40	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Selenium	< 10	10	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Silver	< 5.0	5.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Zinc	< 20	20	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>

(1) Instrument QC Batch: MA10560

(2) Instrument QC Batch: MA10567

(3) Prep QC Batch: MP13617

(4) Prep QC Batch: MP13622

RL = Reporting Limit



## Report of Analysis

<b>Client Sample ID:</b>	1123433		
<b>Lab Sample ID:</b>	M83376-3	<b>Date Sampled:</b>	06/04/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/04/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC:Willow Brook & Pond 2008 Monitoring		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P37572.D	1	06/09/09	AMY	n/a	n/a	MSP1243
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	2.0	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123433	<b>Date Sampled:</b>	06/04/09
<b>Lab Sample ID:</b>	M83376-3	<b>Date Received:</b>	06/04/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: Willow Brook & Pond 2008 Monitoring		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	4.1	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	8.3	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123433	<b>Date Sampled:</b>	06/04/09
<b>Lab Sample ID:</b>	M83376-3	<b>Date Received:</b>	06/04/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: Willow Brook & Pond 2008 Monitoring		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	104%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1123433**Lab Sample ID:** M83376-3**Date Sampled:** 06/04/09**Matrix:** AQ - Ground Water**Date Received:** 06/04/09**Method:** CT-ETPH 7/06 SW846 3510C**Percent Solids:** n/a**Project:** UTC: Willow Brook & Pond 2008 Monitoring

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC27953.D	1	06/17/09	DG	06/09/09	OP18693	GBC1514
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	ND	0.084	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	80%		50-149%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123433	
<b>Lab Sample ID:</b>	M83376-3	<b>Date Sampled:</b> 06/04/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b> 06/04/09
<b>Method:</b>	SW846 8082 SW846 3510C	<b>Percent Solids:</b> n/a
<b>Project:</b>	UTC:Willow Brook & Pond 2008 Monitoring	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF68558.D	1	06/16/09	SL	06/10/09	OP18709	GEF3164
Run #2							

	Initial Volume	Final Volume
Run #1	940 ml	5.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.27	ug/l	
11104-28-2	Aroclor 1221	ND	0.27	ug/l	
11141-16-5	Aroclor 1232	ND	0.27	ug/l	
53469-21-9	Aroclor 1242	ND	0.27	ug/l	
12672-29-6	Aroclor 1248	ND	0.27	ug/l	
11097-69-1	Aroclor 1254	ND	0.27	ug/l	
11096-82-5	Aroclor 1260	ND	0.27	ug/l	
37324-23-5	Aroclor 1262	ND	0.27	ug/l	
11100-14-4	Aroclor 1268	ND	0.27	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	92%		30-150%
877-09-8	Tetrachloro-m-xylene	89%		30-150%
2051-24-3	Decachlorobiphenyl	73%		30-150%
2051-24-3	Decachlorobiphenyl	72%		30-150%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1123433UF**Lab Sample ID:** M83376-4**Matrix:** AQ - Ground Water**Date Sampled:** 06/04/09**Date Received:** 06/04/09**Percent Solids:** n/a**Project:** UTC: Willow Brook & Pond 2008 Monitoring**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Barium	266	200	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Cadmium	< 4.0	4.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Chromium	< 10	10	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Copper	< 25	25	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Lead	< 5.0	5.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Mercury	< 0.20	0.20	ug/l	1	06/09/09	06/10/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>3</sup>
Nickel	89.0	40	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Selenium	< 10	10	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Silver	< 5.0	5.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Zinc	< 20	20	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>

(1) Instrument QC Batch: MA10560

(2) Instrument QC Batch: MA10567

(3) Prep QC Batch: MP13617

(4) Prep QC Batch: MP13622

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1123446	<b>Date Sampled:</b>	06/04/09
<b>Lab Sample ID:</b>	M83376-5	<b>Date Received:</b>	06/04/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC:Willow Brook & Pond 2008 Monitoring		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N34527.D	1	06/18/09	WC	n/a	n/a	MSN1279
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123446	<b>Date Sampled:</b>	06/04/09
<b>Lab Sample ID:</b>	M83376-5	<b>Date Received:</b>	06/04/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: Willow Brook & Pond 2008 Monitoring		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	115%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



Report of Analysis

<b>Client Sample ID:</b>	1123446		
<b>Lab Sample ID:</b>	M83376-5	<b>Date Sampled:</b>	06/04/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/04/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: Willow Brook & Pond 2008 Monitoring		

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	101%		70-130%
460-00-4	4-Bromofluorobenzene	94%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123429		
<b>Lab Sample ID:</b>	M83376-6	<b>Date Sampled:</b>	06/04/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/04/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC:Willow Brook & Pond 2008 Monitoring		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P37573.D	1	06/09/09	AMY	n/a	n/a	MSP1243
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123429	<b>Date Sampled:</b>	06/04/09
<b>Lab Sample ID:</b>	M83376-6	<b>Date Received:</b>	06/04/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: Willow Brook & Pond 2008 Monitoring		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1123429**Lab Sample ID:** M83376-6**Date Sampled:** 06/04/09**Matrix:** AQ - Ground Water**Date Received:** 06/04/09**Method:** SW846 8260B**Percent Solids:** n/a**Project:** UTC: Willow Brook & Pond 2008 Monitoring

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	101%		70-130%
460-00-4	4-Bromofluorobenzene	106%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1123429**Lab Sample ID:** M83376-6**Date Sampled:** 06/04/09**Matrix:** AQ - Ground Water**Date Received:** 06/04/09**Method:** CT-ETPH 7/06 SW846 3510C**Percent Solids:** n/a**Project:** UTC: Willow Brook & Pond 2008 Monitoring

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC27954.D	1	06/17/09	DG	06/09/09	OP18693	GBC1514
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	ND	0.080	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	80%		50-149%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 1123429

Lab Sample ID: M83376-6

Date Sampled: 06/04/09

Matrix: AQ - Ground Water

Date Received: 06/04/09

Method: SW846 8082 SW846 3510C

Percent Solids: n/a

Project: UTC:Willow Brook &amp; Pond 2008 Monitoring

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF68559.D	1	06/16/09	SL	06/10/09	OP18709	GEF3164
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	5.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.26	ug/l	
11104-28-2	Aroclor 1221	ND	0.26	ug/l	
11141-16-5	Aroclor 1232	ND	0.26	ug/l	
53469-21-9	Aroclor 1242	ND	0.26	ug/l	
12672-29-6	Aroclor 1248	ND	0.26	ug/l	
11097-69-1	Aroclor 1254	ND	0.26	ug/l	
11096-82-5	Aroclor 1260	ND	0.26	ug/l	
37324-23-5	Aroclor 1262	ND	0.26	ug/l	
11100-14-4	Aroclor 1268	ND	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	104%		30-150%
877-09-8	Tetrachloro-m-xylene	103%		30-150%
2051-24-3	Decachlorobiphenyl	88%		30-150%
2051-24-3	Decachlorobiphenyl	84%		30-150%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1123429UF**Lab Sample ID:** M83376-7**Matrix:** AQ - Ground Water**Date Sampled:** 06/04/09**Date Received:** 06/04/09**Percent Solids:** n/a**Project:** UTC: Willow Brook & Pond 2008 Monitoring**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Barium	< 200	200	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Cadmium	< 4.0	4.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Chromium	51.5	10	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Copper	< 25	25	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Lead	< 5.0	5.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Mercury	< 0.20	0.20	ug/l	1	06/09/09	06/10/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>3</sup>
Nickel	< 40	40	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Selenium	< 10	10	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Silver	< 5.0	5.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Zinc	< 20	20	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>

(1) Instrument QC Batch: MA10560

(2) Instrument QC Batch: MA10567

(3) Prep QC Batch: MP13617

(4) Prep QC Batch: MP13622

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1123430		
<b>Lab Sample ID:</b>	M83376-8	<b>Date Sampled:</b>	06/04/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/04/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: Willow Brook & Pond 2008 Monitoring		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P37574.D	1	06/09/09	AMY	n/a	n/a	MSP1243
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	5.7	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	1123430	<b>Date Sampled:</b>	06/04/09
<b>Lab Sample ID:</b>	M83376-8	<b>Date Received:</b>	06/04/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: Willow Brook & Pond 2008 Monitoring		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	1123430		
<b>Lab Sample ID:</b>	M83376-8	<b>Date Sampled:</b>	06/04/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/04/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: Willow Brook & Pond 2008 Monitoring		

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	98%		70-130%
460-00-4	4-Bromofluorobenzene	105%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 1123430

Lab Sample ID: M83376-8

Date Sampled: 06/04/09

Matrix: AQ - Ground Water

Date Received: 06/04/09

Method: CT-ETPH 7/06 SW846 3510C

Percent Solids: n/a

Project: UTC: Willow Brook &amp; Pond 2008 Monitoring

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC27955.D	1	06/17/09	DG	06/09/09	OP18693	GBC1514
Run #2							

	Initial Volume	Final Volume
Run #1	800 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	ND	0.10	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	87%		50-149%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 1123430

Lab Sample ID: M83376-8

Date Sampled: 06/04/09

Matrix: AQ - Ground Water

Date Received: 06/04/09

Method: SW846 8082 SW846 3510C

Percent Solids: n/a

Project: UTC:Willow Brook &amp; Pond 2008 Monitoring

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF68560.D	1	06/16/09	SL	06/10/09	OP18709	GEF3164
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	5.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.28	ug/l	
11104-28-2	Aroclor 1221	ND	0.28	ug/l	
11141-16-5	Aroclor 1232	ND	0.28	ug/l	
53469-21-9	Aroclor 1242	ND	0.28	ug/l	
12672-29-6	Aroclor 1248	ND	0.28	ug/l	
11097-69-1	Aroclor 1254	ND	0.28	ug/l	
11096-82-5	Aroclor 1260	ND	0.28	ug/l	
37324-23-5	Aroclor 1262	ND	0.28	ug/l	
11100-14-4	Aroclor 1268	ND	0.28	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	104%		30-150%
877-09-8	Tetrachloro-m-xylene	105%		30-150%
2051-24-3	Decachlorobiphenyl	87%		30-150%
2051-24-3	Decachlorobiphenyl	86%		30-150%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1123430UF**Lab Sample ID:** M83376-9**Date Sampled:** 06/04/09**Matrix:** AQ - Ground Water**Date Received:** 06/04/09**Percent Solids:** n/a**Project:** UTC: Willow Brook & Pond 2008 Monitoring**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Barium	< 200	200	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Cadmium	< 4.0	4.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Chromium	< 10	10	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Copper	< 25	25	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Lead	< 5.0	5.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Mercury	< 0.20	0.20	ug/l	1	06/09/09	06/10/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>3</sup>
Nickel	< 40	40	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Selenium	< 10	10	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Silver	< 5.0	5.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Zinc	< 20	20	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>

(1) Instrument QC Batch: MA10560

(2) Instrument QC Batch: MA10567

(3) Prep QC Batch: MP13617

(4) Prep QC Batch: MP13622

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1123431		
<b>Lab Sample ID:</b>	M83376-10	<b>Date Sampled:</b>	06/04/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/04/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC:Willow Brook & Pond 2008 Monitoring		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P37575.D	1	06/09/09	AMY	n/a	n/a	MSP1243
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123431	<b>Date Sampled:</b>	06/04/09
<b>Lab Sample ID:</b>	M83376-10	<b>Date Received:</b>	06/04/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: Willow Brook & Pond 2008 Monitoring		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123431	<b>Date Sampled:</b>	06/04/09
<b>Lab Sample ID:</b>	M83376-10	<b>Date Received:</b>	06/04/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: Willow Brook & Pond 2008 Monitoring		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	100%		70-130%
460-00-4	4-Bromofluorobenzene	104%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	1123431	<b>Date Sampled:</b>	06/04/09
<b>Lab Sample ID:</b>	M83376-10	<b>Date Received:</b>	06/04/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	CT-ETPH 7/06 SW846 3510C		
<b>Project:</b>	UTC:Willow Brook & Pond 2008 Monitoring		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC27956.D	1	06/17/09	DG	06/09/09	OP18693	GBC1514
Run #2							

	Initial Volume	Final Volume
Run #1	800 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	ND	0.10	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	80%		50-149%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123431		
<b>Lab Sample ID:</b>	M83376-10	<b>Date Sampled:</b>	06/04/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/04/09
<b>Method:</b>	SW846 8082 SW846 3510C	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC:Willow Brook & Pond 2008 Monitoring		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF68561.D	1	06/16/09	SL	06/10/09	OP18709	GEF3164
Run #2							

	Initial Volume	Final Volume
Run #1	880 ml	5.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.28	ug/l	
11104-28-2	Aroclor 1221	ND	0.28	ug/l	
11141-16-5	Aroclor 1232	ND	0.28	ug/l	
53469-21-9	Aroclor 1242	ND	0.28	ug/l	
12672-29-6	Aroclor 1248	ND	0.28	ug/l	
11097-69-1	Aroclor 1254	ND	0.28	ug/l	
11096-82-5	Aroclor 1260	ND	0.28	ug/l	
37324-23-5	Aroclor 1262	ND	0.28	ug/l	
11100-14-4	Aroclor 1268	ND	0.28	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	108%		30-150%
877-09-8	Tetrachloro-m-xylene	105%		30-150%
2051-24-3	Decachlorobiphenyl	76%		30-150%
2051-24-3	Decachlorobiphenyl	74%		30-150%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1123431UF**Lab Sample ID:** M83376-11**Date Sampled:** 06/04/09**Matrix:** AQ - Ground Water**Date Received:** 06/04/09**Percent Solids:** n/a**Project:** UTC: Willow Brook & Pond 2008 Monitoring**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Barium	< 200	200	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Cadmium	< 4.0	4.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Chromium	< 10	10	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Copper	< 25	25	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Lead	< 5.0	5.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Mercury	< 0.20	0.20	ug/l	1	06/09/09	06/10/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>3</sup>
Nickel	< 40	40	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Selenium	< 10	10	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Silver	< 5.0	5.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Zinc	< 20	20	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>

(1) Instrument QC Batch: MA10560

(2) Instrument QC Batch: MA10567

(3) Prep QC Batch: MP13617

(4) Prep QC Batch: MP13622

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1123426	<b>Date Sampled:</b>	06/04/09
<b>Lab Sample ID:</b>	M83376-12	<b>Date Received:</b>	06/04/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC:Willow Brook & Pond 2008 Monitoring		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P37576.D	1	06/10/09	AMY	n/a	n/a	MSP1243
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123426	<b>Date Sampled:</b>	06/04/09
<b>Lab Sample ID:</b>	M83376-12	<b>Date Received:</b>	06/04/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: Willow Brook & Pond 2008 Monitoring		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	1123426		
<b>Lab Sample ID:</b>	M83376-12	<b>Date Sampled:</b>	06/04/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/04/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: Willow Brook & Pond 2008 Monitoring		

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	100%		70-130%
460-00-4	4-Bromofluorobenzene	105%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123426	<b>Date Sampled:</b>	06/04/09
<b>Lab Sample ID:</b>	M83376-12	<b>Date Received:</b>	06/04/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	CT-ETPH 7/06 SW846 3510C		
<b>Project:</b>	UTC: Willow Brook & Pond 2008 Monitoring		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC27957.D	1	06/17/09	DG	06/09/09	OP18693	GBC1514
Run #2							

	Initial Volume	Final Volume
Run #1	700 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	0.570	0.11	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	74%		50-149%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123426		
<b>Lab Sample ID:</b>	M83376-12	<b>Date Sampled:</b>	06/04/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/04/09
<b>Method:</b>	SW846 8082 SW846 3510C	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC:Willow Brook & Pond 2008 Monitoring		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF68572.D	1	06/17/09	SL	06/10/09	OP18709	GEF3164
Run #2							

	Initial Volume	Final Volume
Run #1	850 ml	5.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.29	ug/l	
11104-28-2	Aroclor 1221	ND	0.29	ug/l	
11141-16-5	Aroclor 1232	ND	0.29	ug/l	
53469-21-9	Aroclor 1242	ND	0.29	ug/l	
12672-29-6	Aroclor 1248	ND	0.29	ug/l	
11097-69-1	Aroclor 1254	ND	0.29	ug/l	
11096-82-5	Aroclor 1260	ND	0.29	ug/l	
37324-23-5	Aroclor 1262	ND	0.29	ug/l	
11100-14-4	Aroclor 1268	ND	0.29	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	100%		30-150%
877-09-8	Tetrachloro-m-xylene	90%		30-150%
2051-24-3	Decachlorobiphenyl	75%		30-150%
2051-24-3	Decachlorobiphenyl	78%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

**Client Sample ID:** 1123426UF**Lab Sample ID:** M83376-13**Matrix:** AQ - Ground Water**Date Sampled:** 06/04/09**Date Received:** 06/04/09**Percent Solids:** n/a**Project:** UTC: Willow Brook & Pond 2008 Monitoring**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Barium	< 200	200	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Cadmium	< 4.0	4.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Chromium	< 10	10	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Copper	< 25	25	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Lead	< 5.0	5.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Mercury	< 0.20	0.20	ug/l	1	06/09/09	06/10/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>3</sup>
Nickel	< 40	40	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Selenium	< 10	10	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Silver	< 5.0	5.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Zinc	< 20	20	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>

(1) Instrument QC Batch: MA10560

(2) Instrument QC Batch: MA10567

(3) Prep QC Batch: MP13617

(4) Prep QC Batch: MP13622

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1123428	<b>Date Sampled:</b>	06/04/09
<b>Lab Sample ID:</b>	M83376-14	<b>Date Received:</b>	06/04/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC:Willow Brook & Pond 2008 Monitoring		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P37577.D	1	06/10/09	AMY	n/a	n/a	MSP1243
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123428	<b>Date Sampled:</b>	06/04/09
<b>Lab Sample ID:</b>	M83376-14	<b>Date Received:</b>	06/04/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: Willow Brook & Pond 2008 Monitoring		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	1.2	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123428	<b>Date Sampled:</b>	06/04/09
<b>Lab Sample ID:</b>	M83376-14	<b>Date Received:</b>	06/04/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: Willow Brook & Pond 2008 Monitoring		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	106%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

3.14

3

**Client Sample ID:** 1123428**Lab Sample ID:** M83376-14**Date Sampled:** 06/04/09**Matrix:** AQ - Ground Water**Date Received:** 06/04/09**Method:** CT-ETPH 7/06 SW846 3510C**Percent Solids:** n/a**Project:** UTC:Willow Brook & Pond 2008 Monitoring

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC27958.D	1	06/17/09	DG	06/09/09	OP18693	GBC1514
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
---------	----------	--------	----	-------	---

	CT-DRO (C9-C36)	ND	0.084	mg/l	
--	-----------------	----	-------	------	--

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
---------	----------------------	--------	--------	--------

3386-33-2	1-Chlorooctadecane	81%		50-149%
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ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123428		
<b>Lab Sample ID:</b>	M83376-14	<b>Date Sampled:</b>	06/04/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/04/09
<b>Method:</b>	SW846 8082 SW846 3510C	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC:Willow Brook & Pond 2008 Monitoring		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF68574.D	1	06/17/09	SL	06/10/09	OP18709	GEF3164
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	5.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.28	ug/l	
11104-28-2	Aroclor 1221	ND	0.28	ug/l	
11141-16-5	Aroclor 1232	ND	0.28	ug/l	
53469-21-9	Aroclor 1242	ND	0.28	ug/l	
12672-29-6	Aroclor 1248	ND	0.28	ug/l	
11097-69-1	Aroclor 1254	ND	0.28	ug/l	
11096-82-5	Aroclor 1260	ND	0.28	ug/l	
37324-23-5	Aroclor 1262	ND	0.28	ug/l	
11100-14-4	Aroclor 1268	ND	0.28	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	102%		30-150%
877-09-8	Tetrachloro-m-xylene	104%		30-150%
2051-24-3	Decachlorobiphenyl	89%		30-150%
2051-24-3	Decachlorobiphenyl	90%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1123428UF**Lab Sample ID:** M83376-15**Matrix:** AQ - Ground Water**Date Sampled:** 06/04/09**Date Received:** 06/04/09**Percent Solids:** n/a**Project:** UTC: Willow Brook & Pond 2008 Monitoring**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	5.7	4.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Barium	< 200	200	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Cadmium	< 4.0	4.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Chromium	< 10	10	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Copper	< 25	25	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Lead	< 5.0	5.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Mercury	< 0.20	0.20	ug/l	1	06/09/09	06/10/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>3</sup>
Nickel	< 40	40	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Selenium	< 10	10	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Silver	< 5.0	5.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Zinc	< 20	20	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>

(1) Instrument QC Batch: MA10560

(2) Instrument QC Batch: MA10567

(3) Prep QC Batch: MP13617

(4) Prep QC Batch: MP13622

RL = Reporting Limit



## Misc. Forms

### Custody Documents and Other Forms

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Includes the following where applicable:

- Certification Exceptions
- Certification Exceptions (CT)
- Chain of Custody
- RCP Form
- Sample Tracking Chronicle



Parameter Certification Exceptions

Job Number: M83376  
Account: LEA Loureiro Eng. Associates  
Project: UTC:Willow Brook & Pond 2008 Monitoring

The following parameters included in this report are exceptions to NELAC certification.  
The certification status of each is indicated below.

Parameter	CAS#	Method	Mat	Certification Status
Aroclor 1262	37324-23-5	SW846 8082	AQ	Certified by SOP MGC204/GC-ECD
Aroclor 1268	11100-14-4	SW846 8082	AQ	Certified by SOP MGC204/GC-ECD

4.1  
4

# CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE  
MARLBOROUGH, MA 01752  
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #: **M83376**  
ACCUTEST QUOTE #: **KB2/2009-453**

CLIENT INFORMATION		FACILITY INFORMATION		ANALYTICAL INFORMATION										MATRIX CODES		
<b>LEA</b> NAME: <b>100 Northwest Dr</b> ADDRESS: <b>Plainville CT 06062</b> CITY: <b>Plainville</b> STATE: <b>CT</b> ZIP: <b>06062</b> <b>Robin McKinney</b> SEND REPORT TO: <b>PHONE # 860 410 3000</b>		<b>P.W. East Hartford Willow Brook</b> PROJECT NAME: <b>East Hartford CT</b> LOCATION: <b>880T907</b> PROJECT NO.: FAX #:		<b>VOCs 83603</b> <b>CT ETPH</b> <b>PCBs 8002</b> <b>Total PCBs Metals Cu</b> <b>Hold</b>										<b>DW - DRINKING WATER</b> <b>GW - GROUND WATER</b> <b>WW - WASTE WATER</b> <b>SO - SOIL</b> <b>SL - SLUDGE</b> <b>OI - OIL</b> <b>LIQ - OTHER LIQUID</b> <b>SOL - OTHER SOLID</b>		
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION			MATRIX	# OF BOTTLES	PRESERVATION								LAB USE ONLY	
		DATE	TIME	SAMPLED BY:			HC	HH3	HH3C	HH3C4	HH3C5	HH3C6	HH3C7	HH3C8		
-1	1123432	6/4/09	12:00	SK	GW	2	X						X	X		
	1123432			SK		4							X	X		
-2	1123432UF			SK		1		X					X			
-1	1123432			SK		1		X					X			
-3	1123433		14:45	SK		2	X						X	X		
	1123433			SK		4							X	X		
-4	1123433UF			SK		1		X					X			
-5	1123446		9:00	SK		2	X						X	X		
-6	1123429		10:35	SK		2	X						X	X		190213
	1123429			SK		4							X	X		GD
-7	1123429UF			SK		1		X					X			
<b>DATA TURNAROUND INFORMATION</b> <input checked="" type="checkbox"/> 14 DAYS STANDARD <input type="checkbox"/> 7 DAYS RUSH <input type="checkbox"/> 48 HOUR EMERGENCY <input type="checkbox"/> OTHER 14 DAY TURNAROUND HARD COPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED		<b>DATA DELIVERABLE INFORMATION</b> <input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> COMMERCIAL "B" <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> STATE FORMS <input type="checkbox"/> OTHER (SPECIFY)		<b>COMMENTS/REMARKS</b> Provide CT RCP analytical lists for VOCs, PCBs, and provide CT RCP Report												
<b>SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY</b>																
RELINQUISHED BY: 1. <b>[Signature]</b> DATE TIME: 6/4/09 1600		RECEIVED BY: 1. <b>[Signature]</b> DATE TIME:		RELINQUISHED BY: 2. <b>B.C.</b> DATE TIME: 6-4-09 1730		RECEIVED BY: 2. <b>B.C.</b> DATE TIME:										
RELINQUISHED BY: 3. <b>[Signature]</b> DATE TIME:		RECEIVED BY: 3. <b>[Signature]</b> DATE TIME:		RELINQUISHED BY: 4. <b>[Signature]</b> DATE TIME:		RECEIVED BY: 4. <b>[Signature]</b> DATE TIME:										
RELINQUISHED BY: 5. <b>[Signature]</b> DATE TIME:		RECEIVED BY: 5. <b>[Signature]</b> DATE TIME:		SEAL #		PRESERVE WHERE APPLICABLE <input type="checkbox"/>		ON ICE <input checked="" type="checkbox"/>		TEMPERATURE <b>21 C</b>						

M83376: Chain of Custody

Page 1 of 6

# CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE  
MARLBOROUGH, MA 01752  
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #: M83376  
ACCUTEST QUOTE #: KB2/2009-453

CLIENT INFORMATION		FACILITY INFORMATION		ANALYTICAL INFORMATION										MATRIX CODES		
<b>NAME</b> <u>LEA</u> <b>ADDRESS</b> <u>100 Northwest Dr</u> <u>Piassville CT 06062</u> <b>CITY</b> <u>Piassville</u> <b>STATE</b> <u>CT</u> <b>ZIP</b> <u>06062</u> <b>SEND REPORT TO:</b> <b>PHONE #</b> <u>860 410 3000</u>		<b>PROJECT NAME</b> <u>P+W East Hartford Willow Brook/William P+W</u> <b>LOCATION</b> <u>East Hartford, CT</u> <b>PROJECT NO.</b> <u>88 UT 907</u> <b>FAX #</b>		<b>ANALYTICAL INFORMATION</b> <u>VOCs 82403</u> <u>CT ETPH</u> <u>PCBs 8082</u> <u>Heavy Metals 8082</u> <u>Lead</u>										<b>MATRIX CODES</b> DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OI - OIL LIQ - OTHER LIQUID SOL - OTHER SOLID		
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION		MATRIX	# OF BOTTLES	PRESERVATION										LAB USE ONLY
		DATE	TIME			SAMPLED BY:	HCl	NaOH	INH3	H2SO4	None	ICA	Other			
-8	1123430	6/4/09	1730	RSP	GW	2	X						X	X		
	1123430					4							X	X		
-9	1123430F					1		X							X	
-10	1123431		1435			2	X						X	X		
	1123431					4							X	X		
-11	1123431F					1		X							X	
-12	1123426		12:50	NE		2	X						X			
	1123426					4							X	X		
-13	1123426vf					1		X					X			
-14	1123428		1520			2	X						X			
	1123428	6/4/09	1520		GW	4							X	X		
<b>DATA TURNAROUND INFORMATION</b> <input checked="" type="checkbox"/> 14 DAYS STANDARD <input type="checkbox"/> 7 DAYS RUSH <input type="checkbox"/> 48 HOUR EMERGENCY <input type="checkbox"/> OTHER 14 DAY TURNAROUND HARDCOPY, EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED		<b>DATA DELIVERABLE INFORMATION</b> <input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> COMMERCIAL "B" <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> STATE FORMS <input type="checkbox"/> OTHER (SPECIFY)		<b>COMMENTS/REMARKS</b> <u>Provide CT RCP analytical lists for VOCs, PCBs, and provide CT RCP Report</u>												
<b>SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY</b>																
RELINQUISHED BY: 1. <u>[Signature]</u> DATE TIME: <u>6/4/09 1600</u>		RECEIVED BY: 1. <u>[Signature]</u> DATE TIME:		RELINQUISHED BY: 2. DATE TIME:		RECEIVED BY: 2.		RELINQUISHED BY: 3. DATE TIME:		RECEIVED BY: 3.		RELINQUISHED BY: 4. DATE TIME:		RECEIVED BY: 4.		
RELINQUISHED BY: 3. DATE TIME:		RECEIVED BY: 3.		RELINQUISHED BY: 4. DATE TIME:		RECEIVED BY: 4.		RELINQUISHED BY: 5. DATE TIME:		RECEIVED BY: 5.		SEAL #		PRESERVE WHERE APPLICABLE <input type="checkbox"/> ON ICE <input type="checkbox"/> TEMPERATURE _____ C		

M83376: Chain of Custody

Page 2 of 6





# CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE  
MARLBOROUGH, MA 01752  
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #: **M83376**  
ACCUTEST QUOTE #:

CLIENT INFORMATION			FACILITY INFORMATION			ANALYTICAL INFORMATION										MATRIX CODES	
NAME			PROJECT NAME													DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OL - OIL LIQ - OTHER LIQUID SOL - OTHER SOLID	
ADDRESS			LOCATION														
CITY, STATE ZIP			PROJECT NO.														
SEND REPORT TO: PHONE #			FAX #														
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION		SAMPLED BY:	MATRIX	PRESERVATION										LAB USE ONLY	
		DATE	TIME			NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.		
1{																	
2																	
3{																	
4																	
5																	
6{																	
7																	

DATA TURNAROUND INFORMATION		DATA DELIVERABLE INFORMATION		COMMENTS/REMARKS	
<input type="checkbox"/> 14 DAYS STANDARD <input type="checkbox"/> 7 DAYS RUSH <input type="checkbox"/> 48 HOUR EMERGENCY <input type="checkbox"/> OTHER	APPROVED BY:	<input type="checkbox"/> STANDARD <input type="checkbox"/> COMMERCIAL "B" <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> STATE FORMS <input type="checkbox"/> OTHER (SPECIFY)			
14 DAY TURNAROUND HARD COPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED					

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY					
RELINQUISHED BY:	DATE TIME:	RECEIVED BY:	DATE TIME:	RELINQUISHED BY:	DATE TIME:
1.		1.		2.	
RELINQUISHED BY:	DATE TIME:	RECEIVED BY:	DATE TIME:	RELINQUISHED BY:	DATE TIME:
3.		3.		4.	
RELINQUISHED BY:	DATE TIME:	RECEIVED BY:	DATE TIME:	RELINQUISHED BY:	DATE TIME:
5.		5.		6.	

SEAL # \_\_\_\_\_ PRESERVE WHERE APPLICABLE ☐ ON ICE ☐ TEMPERATURE \_\_\_\_\_ C

M83376: Chain of Custody

Page 4 of 6

# CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE  
MARLBOROUGH, MA 01752  
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:

M83376

ACCUTEST QUOTE #:

CLIENT INFORMATION			FACILITY INFORMATION			ANALYTICAL INFORMATION										MATRIX CODES		
NAME			PROJECT NAME													DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OL - OIL LIQ - OTHER LIQUID SOL - OTHER SOLID		
ADDRESS			LOCATION															
CITY, STATE ZIP			PROJECT NO.															
SEND REPORT TO: PHONE #			FAX #															
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION		SAMPLED BY:	MATRIX	PRESERVATION										LAB USE ONLY		
		DATE	TIME			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO			
8	123450	6/4/00	12:30	BY	2	X												
9	5450				9													
10	5450				7													
11	1123456				7													
12	424				4													
13																		
14																		
<input type="checkbox"/> 14 DAYS STANDARD <input type="checkbox"/> 7 DAYS RUSH <input type="checkbox"/> 48 HOUR EMERGENCY <input type="checkbox"/> OTHER			APPROVED BY:			<input type="checkbox"/> STANDARD <input type="checkbox"/> COMMERCIAL "B" <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> STATE FORMS <input type="checkbox"/> OTHER (SPECIFY)			COMMENTS/REMARKS									
14 DAY TURNAROUND HARDCOPY, EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED																		
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY																		
RELINQUISHED BY: 1.		DATE TIME:		RECEIVED BY: 1.		RELINQUISHED BY: 2.		DATE TIME:		RECEIVED BY: 2.								
RELINQUISHED BY: 3.		DATE TIME:		RECEIVED BY: 3.		RELINQUISHED BY: 4.		DATE TIME:		RECEIVED BY: 4.								
RELINQUISHED BY: 5.		DATE TIME:		RECEIVED BY: 5.		SEAL #		PRESERVE WHERE APPLICABLE		ON ICE		TEMPERATURE C						

M83376: Chain of Custody

Page 5 of 6

ACCUTEST JOB #:		M83376	
ACCUTEST QUOTE #:			
ANALYTICAL INFORMATION		MATRIX CODES	
		DW - DRINKING WATER	
		GW - GROUND WATER	
		WW - WASTE WATER	
		SO - SOIL	
		SL - SLUDGE	
		OI - OIL	
		LIQ - OTHER LIQUID	
		SOL - OTHER SOLID	

[illegible]

## M83376: Chain of Custody

Page 6 of 6

# Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Laboratory Name: Accutest New England Client: Loureiro Eng. Associates

Project Location: UTC:Willow Brook & Pond 2008 Monitoring Project Number: 88UT624

Sampling Date(s): 6/4/2009

Laboratory Sample ID(s): M83376-1, M83376-2, M83376-3, M83376-4, M83376-5, M83376-6, M83376-7, M83376-8, M83376-9, M83376-10, M83376-11, M83376-12, M83376-13, M83376-14, M83376-15

Methods: CT-ETPH 7/06, SW846 6010B, 7470A, 8082,8260B

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CTDEP method-specific Reasonable Confidence Protocol documents)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1A	Where all the method specified preservation and holding time requirements met?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1B	VPH and EPH mehdos only: Was the VPH or EPH method conducted without significant modifications (See section 11.3 of respective methods)	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
3	Were samples received at an appropriate temperature (<6° C)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
4	Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
5	a) Were reporting limits specified or referenced on the chain-of-custody?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
	b) Were these reporting limits met?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
7	Are project-specific matrix spikes and laboratory duplicates included in this data set?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Note: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or #1B is "No", the data package does not meet the requirements for "Reasonable Confidence".

I, the undersigned, attest under pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized

Signature:

Position: Lab Director

Printed Name: Reza Tand

Accutest New England

Date: 6/18/2009



## Internal Sample Tracking Chronicle

Loureiro Eng. Associates

Job No: M83376

UTC: Willow Brook & Pond 2008 Monitoring  
Project No: 88UT907

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M83376-1 1123432	Collected: 04-JUN-09 12:00	By: SK	Received: 04-JUN-09 By: JB			
M83376-1	SW846 8260B	09-JUN-09 21:52	AMY			V8260RCP
M83376-1	SW846 8082	16-JUN-09 21:33	SL	10-JUN-09	AJ	P8082PCB
M83376-1	CT-ETPH 7/06	17-JUN-09 03:56	DG	09-JUN-09	FG	BCTTPH
M83376-2 1123432UF	Collected: 04-JUN-09 12:00	By: SK	Received: 04-JUN-09 By: JB			
M83376-2	SW846 7470A	10-JUN-09 11:00	MA	09-JUN-09	MA	HG
M83376-2	SW846 6010B	11-JUN-09 10:57	PY	10-JUN-09	PY	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M83376-3 1123433	Collected: 04-JUN-09 14:45	By: SK	Received: 04-JUN-09 By: JB			
M83376-3	SW846 8260B	09-JUN-09 22:20	AMY			V8260RCP
M83376-3	SW846 8082	16-JUN-09 22:02	SL	10-JUN-09	AJ	P8082PCB
M83376-3	CT-ETPH 7/06	17-JUN-09 04:35	DG	09-JUN-09	FG	BCTTPH
M83376-4 1123433UF	Collected: 04-JUN-09 14:45	By: SK	Received: 04-JUN-09 By: JB			
M83376-4	SW846 7470A	10-JUN-09 11:02	MA	09-JUN-09	MA	HG
M83376-4	SW846 6010B	11-JUN-09 10:18	PY	10-JUN-09	PY	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M83376-5 1123446	Collected: 04-JUN-09 09:00	By: SK	Received: 04-JUN-09 By: JB			
M83376-5	SW846 8260B	18-JUN-09 14:09	WC			V8260RCP
M83376-6 1123429	Collected: 04-JUN-09 10:35	By: SK	Received: 04-JUN-09 By: JB			
M83376-6	SW846 8260B	09-JUN-09 22:48	AMY			V8260RCP
M83376-6	SW846 8082	16-JUN-09 22:47	SL	10-JUN-09	AJ	P8082PCB
M83376-6	CT-ETPH 7/06	17-JUN-09 05:13	DG	09-JUN-09	FG	BCTTPH

## Internal Sample Tracking Chronicle

Loureiro Eng. Associates

Job No: M83376

UTC: Willow Brook & Pond 2008 Monitoring  
Project No: 88UT907

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M83376-7 Collected: 04-JUN-09 10:35 By: SK Received: 04-JUN-09 By: JB 1123429UF						
M83376-7	SW846 7470A	10-JUN-09 11:05	MA	09-JUN-09	MA	HG
M83376-7	SW846 6010B	11-JUN-09 11:03	PY	10-JUN-09	PY	AG, AS, BA, CD, CR, CU, NI, PB, SE, ZN
M83376-8 Collected: 04-JUN-09 12:30 By: SK Received: 04-JUN-09 By: JB 1123430						
M83376-8	SW846 8260B	09-JUN-09 23:16	AMY			V8260RCP
M83376-8	SW846 8082	16-JUN-09 23:16	SL	10-JUN-09	AJ	P8082PCB
M83376-8	CT-ETPH 7/06	17-JUN-09 05:52	DG	09-JUN-09	FG	BCTTPH
M83376-9 Collected: 04-JUN-09 12:30 By: SK Received: 04-JUN-09 By: JB 1123430UF						
M83376-9	SW846 7470A	10-JUN-09 11:11	MA	09-JUN-09	MA	HG
M83376-9	SW846 6010B	11-JUN-09 11:09	PY	10-JUN-09	PY	AG, AS, BA, CD, CR, CU, NI, PB, SE, ZN
M83376-10 Collected: 04-JUN-09 14:35 By: SK Received: 04-JUN-09 By: JB 1123431						
M83376-10	SW846 8260B	09-JUN-09 23:44	AMY			V8260RCP
M83376-10	SW846 8082	16-JUN-09 00:01	SL	10-JUN-09	AJ	P8082PCB
M83376-10	CT-ETPH 7/06	17-JUN-09 06:31	DG	09-JUN-09	FG	BCTTPH
M83376-11 Collected: 04-JUN-09 14:35 By: SK Received: 04-JUN-09 By: JB 1123431UF						
M83376-11	SW846 7470A	10-JUN-09 11:13	MA	09-JUN-09	MA	HG
M83376-11	SW846 6010B	11-JUN-09 11:14	PY	10-JUN-09	PY	AG, AS, BA, CD, CR, CU, NI, PB, SE, ZN
M83376-12 Collected: 04-JUN-09 12:50 By: SK Received: 04-JUN-09 By: JB 1123426						
M83376-12	SW846 8260B	10-JUN-09 00:12	AMY			V8260RCP

## Internal Sample Tracking Chronicle

Loureiro Eng. Associates

Job No: M83376

UTC: Willow Brook & Pond 2008 Monitoring  
Project No: 88UT907

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M83376-12	SW846 8082	17-JUN-09 06:40	SL	10-JUN-09	AJ	P8082PCB
M83376-12	CT-ETPH 7/06	17-JUN-09 07:11	DG	09-JUN-09	FG	BCTTPH
M83376-13 Collected: 04-JUN-09 12:50 By: SK Received: 04-JUN-09 By: JB 1123426UF						
M83376-13	SW846 7470A	10-JUN-09 11:16	MA	09-JUN-09	MA	HG
M83376-13	SW846 6010B	11-JUN-09 11:20	PY	10-JUN-09	PY	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M83376-14 Collected: 04-JUN-09 15:20 By: SK Received: 04-JUN-09 By: JB 1123428						
M83376-14	SW846 8260B	10-JUN-09 00:40	AMY			V8260RCP
M83376-14	CT-ETPH 7/06	17-JUN-09 07:50	DG	09-JUN-09	FG	BCTTPH
M83376-14	SW846 8082	17-JUN-09 07:54	SL	10-JUN-09	AJ	P8082PCB
M83376-15 Collected: 04-JUN-09 15:20 By: SK Received: 04-JUN-09 By: JB 1123428UF						
M83376-15	SW846 7470A	10-JUN-09 11:18	MA	09-JUN-09	MA	HG
M83376-15	SW846 6010B	11-JUN-09 11:26	PY	10-JUN-09	PY	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN



## GC/MS Volatiles

5

### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

## Method Blank Summary

Page 1 of 3

**Job Number:** M83376**Account:** LEA Loureiro Eng. Associates**Project:** UTC:Willow Brook & Pond 2008 Monitoring

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1243-MB	P37560.D	1	06/09/09	AMY	n/a	n/a	MSP1243

**The QC reported here applies to the following samples:****Method:** SW846 8260B

M83376-1, M83376-3, M83376-6, M83376-8, M83376-10, M83376-12, M83376-14

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	

## Method Blank Summary

Page 2 of 3

**Job Number:** M83376

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC:Willow Brook & Pond 2008 Monitoring

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1243-MB	P37560.D	1	06/09/09	AMY	n/a	n/a	MSP1243

The QC reported here applies to the following samples:

Method: SW846 8260B

M83376-1, M83376-3, M83376-6, M83376-8, M83376-10, M83376-12, M83376-14

CAS No.	Compound	Result	RL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

Method Blank Summary

Job Number: M83376  
Account: LEA Loureiro Eng. Associates  
Project: UTC:Willow Brook & Pond 2008 Monitoring

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1243-MB	P37560.D	1	06/09/09	AMY	n/a	n/a	MSP1243

The QC reported here applies to the following samples: Method: SW846 8260B

M83376-1, M83376-3, M83376-6, M83376-8, M83376-10, M83376-12, M83376-14

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	98% 70-130%
2037-26-5	Toluene-D8	101% 70-130%
460-00-4	4-Bromofluorobenzene	107% 70-130%

## Method Blank Summary

Page 1 of 3

**Job Number:** M83376

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC:Willow Brook & Pond 2008 Monitoring

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1279-MB	N34525.D	1	06/18/09	WC	n/a	n/a	MSN1279

The QC reported here applies to the following samples:

Method: SW846 8260B

M83376-5

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	



## Method Blank Summary

Page 2 of 3

**Job Number:** M83376  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC:Willow Brook & Pond 2008 Monitoring

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1279-MB	N34525.D	1	06/18/09	WC	n/a	n/a	MSN1279

The QC reported here applies to the following samples:

Method: SW846 8260B

M83376-5

CAS No.	Compound	Result	RL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

Method Blank Summary

Job Number: M83376  
Account: LEA Loureiro Eng. Associates  
Project: UTC:Willow Brook & Pond 2008 Monitoring

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1279-MB	N34525.D	1	06/18/09	WC	n/a	n/a	MSN1279

The QC reported here applies to the following samples: Method: SW846 8260B

M83376-5

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	111% 70-130%
2037-26-5	Toluene-D8	99% 70-130%
460-00-4	4-Bromofluorobenzene	95% 70-130%

## Blank Spike Summary

Page 1 of 3

**Job Number:** M83376  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC:Willow Brook & Pond 2008 Monitoring

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1243-BS	P37557A.D	1	06/09/09	AMY	n/a	n/a	MSP1243

The QC reported here applies to the following samples:

Method: SW846 8260B

M83376-1, M83376-3, M83376-6, M83376-8, M83376-10, M83376-12, M83376-14

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	65.2	130	70-130
107-13-1	Acrylonitrile	250	243	97	70-130
71-43-2	Benzene	50	43.8	88	70-130
108-86-1	Bromobenzene	50	48.2	96	70-130
75-27-4	Bromodichloromethane	50	49.2	98	70-130
75-25-2	Bromoform	50	47.7	95	70-130
74-83-9	Bromomethane	50	47.6	95	70-130
78-93-3	2-Butanone (MEK)	50	53.5	107	70-130
104-51-8	n-Butylbenzene	50	48.6	97	70-130
135-98-8	sec-Butylbenzene	50	53.5	107	70-130
98-06-6	tert-Butylbenzene	50	52.4	105	70-130
75-15-0	Carbon disulfide	50	45.8	92	70-130
56-23-5	Carbon tetrachloride	50	44.0	88	70-130
108-90-7	Chlorobenzene	50	47.5	95	70-130
75-00-3	Chloroethane	50	43.2	86	70-130
67-66-3	Chloroform	50	44.9	90	70-130
74-87-3	Chloromethane	50	48.7	97	70-130
95-49-8	o-Chlorotoluene	50	51.4	103	70-130
106-43-4	p-Chlorotoluene	50	51.8	104	70-130
96-12-8	1,2-Dibromo-3-chloropropane	50	46.2	92	70-130
124-48-1	Dibromochloromethane	50	52.5	105	70-130
106-93-4	1,2-Dibromoethane	50	50.6	101	70-130
95-50-1	1,2-Dichlorobenzene	50	49.8	100	70-130
541-73-1	1,3-Dichlorobenzene	50	50.2	100	70-130
106-46-7	1,4-Dichlorobenzene	50	49.0	98	70-130
75-71-8	Dichlorodifluoromethane	50	40.8	82	70-130
75-34-3	1,1-Dichloroethane	50	42.6	85	70-130
107-06-2	1,2-Dichloroethane	50	43.4	87	70-130
75-35-4	1,1-Dichloroethene	50	44.8	90	70-130
156-59-2	cis-1,2-Dichloroethene	50	47.2	94	70-130
156-60-5	trans-1,2-Dichloroethene	50	46.0	92	70-130
78-87-5	1,2-Dichloropropane	50	45.2	90	70-130
142-28-9	1,3-Dichloropropane	50	48.0	96	70-130
594-20-7	2,2-Dichloropropane	50	19.4	39* a	70-130
563-58-6	1,1-Dichloropropene	50	46.0	92	70-130
10061-01-5	cis-1,3-Dichloropropene	50	39.2	78	70-130

## Blank Spike Summary

Page 2 of 3

**Job Number:** M83376  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC:Willow Brook & Pond 2008 Monitoring

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1243-BS	P37557A.D	1	06/09/09	AMY	n/a	n/a	MSP1243

The QC reported here applies to the following samples:

Method: SW846 8260B

M83376-1, M83376-3, M83376-6, M83376-8, M83376-10, M83376-12, M83376-14

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-02-6	trans-1,3-Dichloropropene	50	39.0	78	70-130
100-41-4	Ethylbenzene	50	48.5	97	70-130
76-13-1	Freon 113	50	44.2	88	70-130
87-68-3	Hexachlorobutadiene	50	52.6	105	70-130
591-78-6	2-Hexanone	50	50.5	101	70-130
98-82-8	Isopropylbenzene	50	54.1	108	70-130
99-87-6	p-Isopropyltoluene	50	53.6	107	70-130
1634-04-4	Methyl Tert Butyl Ether	50	39.9	80	70-130
108-10-1	4-Methyl-2-pentanone (MIBK)	50	46.1	92	70-130
74-95-3	Methylene bromide	50	48.0	96	70-130
75-09-2	Methylene chloride	50	43.1	86	70-130
91-20-3	Naphthalene	50	43.2	86	70-130
103-65-1	n-Propylbenzene	50	53.5	107	70-130
100-42-5	Styrene	50	46.2	92	70-130
630-20-6	1,1,1,2-Tetrachloroethane	50	49.4	99	70-130
79-34-5	1,1,2,2-Tetrachloroethane	50	50.1	100	70-130
127-18-4	Tetrachloroethene	50	48.2	96	70-130
109-99-9	Tetrahydrofuran	50	44.1	88	70-130
108-88-3	Toluene	50	47.5	95	70-130
110-57-6	Trans-1,4-Dichloro-2-Butene	50	48.2	96	70-130
87-61-6	1,2,3-Trichlorobenzene	50	45.8	92	70-130
120-82-1	1,2,4-Trichlorobenzene	50	47.1	94	70-130
71-55-6	1,1,1-Trichloroethane	50	40.7	81	70-130
79-00-5	1,1,2-Trichloroethane	50	48.7	97	70-130
79-01-6	Trichloroethene	50	48.6	97	70-130
75-69-4	Trichlorofluoromethane	50	39.1	78	70-130
96-18-4	1,2,3-Trichloropropane	50	48.7	97	70-130
95-63-6	1,2,4-Trimethylbenzene	50	52.0	104	70-130
108-67-8	1,3,5-Trimethylbenzene	50	51.6	103	70-130
75-01-4	Vinyl chloride	50	51.0	102	70-130
	m,p-Xylene	100	97.7	98	70-130
95-47-6	o-Xylene	50	48.9	98	70-130

## Blank Spike Summary

Page 3 of 3

**Job Number:** M83376  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC:Willow Brook & Pond 2008 Monitoring

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1243-BS	P37557A.D	1	06/09/09	AMY	n/a	n/a	MSP1243

The QC reported here applies to the following samples:

Method: SW846 8260B

M83376-1, M83376-3, M83376-6, M83376-8, M83376-10, M83376-12, M83376-14

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	90%	70-130%
2037-26-5	Toluene-D8	100%	70-130%
460-00-4	4-Bromofluorobenzene	100%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

## Blank Spike Summary

Page 1 of 3

**Job Number:** M83376

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC:Willow Brook & Pond 2008 Monitoring

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1279-BS	N34523A.D	1	06/18/09	WC	n/a	n/a	MSN1279

The QC reported here applies to the following samples:

Method: SW846 8260B

M83376-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	40.3	81	70-130
107-13-1	Acrylonitrile	250	217	87	70-130
71-43-2	Benzene	50	45.0	90	70-130
108-86-1	Bromobenzene	50	43.6	87	70-130
75-27-4	Bromodichloromethane	50	53.4	107	70-130
75-25-2	Bromoform	50	54.4	109	70-130
74-83-9	Bromomethane	50	48.7	97	70-130
78-93-3	2-Butanone (MEK)	50	49.0	98	70-130
104-51-8	n-Butylbenzene	50	42.8	86	70-130
135-98-8	sec-Butylbenzene	50	44.1	88	70-130
98-06-6	tert-Butylbenzene	50	43.8	88	70-130
75-15-0	Carbon disulfide	50	47.9	96	70-130
56-23-5	Carbon tetrachloride	50	67.3	135* a	70-130
108-90-7	Chlorobenzene	50	47.1	94	70-130
75-00-3	Chloroethane	50	42.9	86	70-130
67-66-3	Chloroform	50	48.0	96	70-130
74-87-3	Chloromethane	50	34.8	70	70-130
95-49-8	o-Chlorotoluene	50	42.7	85	70-130
106-43-4	p-Chlorotoluene	50	43.0	86	70-130
96-12-8	1,2-Dibromo-3-chloropropane	50	47.1	94	70-130
124-48-1	Dibromochloromethane	50	58.5	117	70-130
106-93-4	1,2-Dibromoethane	50	47.8	96	70-130
95-50-1	1,2-Dichlorobenzene	50	44.0	88	70-130
541-73-1	1,3-Dichlorobenzene	50	43.9	88	70-130
106-46-7	1,4-Dichlorobenzene	50	42.7	85	70-130
75-71-8	Dichlorodifluoromethane	50	42.7	85	70-130
75-34-3	1,1-Dichloroethane	50	44.0	88	70-130
107-06-2	1,2-Dichloroethane	50	48.4	97	70-130
75-35-4	1,1-Dichloroethene	50	45.2	90	70-130
156-59-2	cis-1,2-Dichloroethene	50	48.1	96	70-130
156-60-5	trans-1,2-Dichloroethene	50	46.3	93	70-130
78-87-5	1,2-Dichloropropane	50	43.0	86	70-130
142-28-9	1,3-Dichloropropane	50	47.2	94	70-130
594-20-7	2,2-Dichloropropane	50	60.5	121	70-130
563-58-6	1,1-Dichloropropene	50	47.3	95	70-130
10061-01-5	cis-1,3-Dichloropropene	50	53.5	107	70-130

## Blank Spike Summary

Page 2 of 3

**Job Number:** M83376  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC:Willow Brook & Pond 2008 Monitoring

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1279-BS	N34523A.D	1	06/18/09	WC	n/a	n/a	MSN1279

The QC reported here applies to the following samples:

Method: SW846 8260B

M83376-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-02-6	trans-1,3-Dichloropropene	50	52.9	106	70-130
100-41-4	Ethylbenzene	50	47.0	94	70-130
76-13-1	Freon 113	50	53.3	107	70-130
87-68-3	Hexachlorobutadiene	50	46.9	94	70-130
591-78-6	2-Hexanone	50	43.4	87	70-130
98-82-8	Isopropylbenzene	50	43.9	88	70-130
99-87-6	p-Isopropyltoluene	50	44.5	89	70-130
1634-04-4	Methyl Tert Butyl Ether	50	53.5	107	70-130
108-10-1	4-Methyl-2-pentanone (MIBK)	50	46.9	94	70-130
74-95-3	Methylene bromide	50	51.4	103	70-130
75-09-2	Methylene chloride	50	44.7	89	70-130
91-20-3	Naphthalene	50	42.4	85	70-130
103-65-1	n-Propylbenzene	50	44.4	89	70-130
100-42-5	Styrene	50	46.0	92	70-130
630-20-6	1,1,1,2-Tetrachloroethane	50	54.6	109	70-130
79-34-5	1,1,2,2-Tetrachloroethane	50	40.1	80	70-130
127-18-4	Tetrachloroethene	50	46.7	93	70-130
109-99-9	Tetrahydrofuran	50	44.9	90	70-130
108-88-3	Toluene	50	46.6	93	70-130
110-57-6	Trans-1,4-Dichloro-2-Butene	50	47.4	95	70-130
87-61-6	1,2,3-Trichlorobenzene	50	43.7	87	70-130
120-82-1	1,2,4-Trichlorobenzene	50	42.7	85	70-130
71-55-6	1,1,1-Trichloroethane	50	52.3	105	70-130
79-00-5	1,1,2-Trichloroethane	50	47.7	95	70-130
79-01-6	Trichloroethene	50	46.9	94	70-130
75-69-4	Trichlorofluoromethane	50	49.1	98	70-130
96-18-4	1,2,3-Trichloropropane	50	43.4	87	70-130
95-63-6	1,2,4-Trimethylbenzene	50	43.4	87	70-130
108-67-8	1,3,5-Trimethylbenzene	50	42.8	86	70-130
75-01-4	Vinyl chloride	50	52.9	106	70-130
	m,p-Xylene	100	92.8	93	70-130
95-47-6	o-Xylene	50	46.0	92	70-130

Blank Spike Summary

Job Number: M83376  
Account: LEA Loureiro Eng. Associates  
Project: UTC:Willow Brook & Pond 2008 Monitoring

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1279-BS	N34523A.D	1	06/18/09	WC	n/a	n/a	MSN1279

The QC reported here applies to the following samples: Method: SW846 8260B

M83376-5

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	106%	70-130%
2037-26-5	Toluene-D8	99%	70-130%
460-00-4	4-Bromofluorobenzene	89%	70-130%

(a) Outside control limits. Associated samples are non-detect for this compound.



# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 3

**Job Number:** M83376  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC:Willow Brook & Pond 2008 Monitoring

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M83210-3MS	P37569.D	5	06/09/09	AMY	n/a	n/a	MSP1243
M83210-3MSD	P37570.D	5	06/09/09	AMY	n/a	n/a	MSP1243
M83210-3	P37564.D	1	06/09/09	AMY	n/a	n/a	MSP1243

The QC reported here applies to the following samples:

Method: SW846 8260B

M83376-1, M83376-3, M83376-6, M83376-8, M83376-10, M83376-12, M83376-14

CAS No.	Compound	M83210-3 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND	250	166	66* a	169	68* a	2	70-130/30
107-13-1	Acrylonitrile	ND	1250	1130	90	1130	90	0	70-130/30
71-43-2	Benzene	ND	250	222	89	213	85	4	70-130/30
108-86-1	Bromobenzene	ND	250	241	96	227	91	6	70-130/30
75-27-4	Bromodichloromethane	ND	250	231	92	227	91	2	70-130/30
75-25-2	Bromoform	ND	250	219	88	221	88	1	70-130/30
74-83-9	Bromomethane	ND	250	183	73	214	86	16	70-130/30
78-93-3	2-Butanone (MEK)	ND	250	211	84	219	88	4	70-130/30
104-51-8	n-Butylbenzene	ND	250	225	90	221	88	2	70-130/30
135-98-8	sec-Butylbenzene	ND	250	256	102	248	99	3	70-130/30
98-06-6	tert-Butylbenzene	ND	250	254	102	248	99	2	70-130/30
75-15-0	Carbon disulfide	ND	250	215	86	212	85	1	70-130/30
56-23-5	Carbon tetrachloride	ND	250	220	88	215	86	2	70-130/30
108-90-7	Chlorobenzene	ND	250	234	94	230	92	2	70-130/30
75-00-3	Chloroethane	ND	250	227	91	215	86	5	70-130/30
67-66-3	Chloroform	ND	250	223	89	219	88	2	70-130/30
74-87-3	Chloromethane	ND	250	260	104	239	96	8	70-130/30
95-49-8	o-Chlorotoluene	ND	250	259	104	246	98	5	70-130/30
106-43-4	p-Chlorotoluene	ND	250	256	102	246	98	4	70-130/30
96-12-8	1,2-Dibromo-3-chloropropane	ND	250	202	81	211	84	4	70-130/30
124-48-1	Dibromochloromethane	ND	250	243	97	245	98	1	70-130/30
106-93-4	1,2-Dibromoethane	ND	250	239	96	236	94	1	70-130/30
95-50-1	1,2-Dichlorobenzene	ND	250	238	95	233	93	2	70-130/30
541-73-1	1,3-Dichlorobenzene	ND	250	238	95	235	94	1	70-130/30
106-46-7	1,4-Dichlorobenzene	ND	250	234	94	227	91	3	70-130/30
75-71-8	Dichlorodifluoromethane	ND	250	212	85	210	84	1	70-130/30
75-34-3	1,1-Dichloroethane	ND	250	217	87	209	84	4	70-130/30
107-06-2	1,2-Dichloroethane	ND	250	208	83	205	82	1	70-130/30
75-35-4	1,1-Dichloroethene	ND	250	222	89	216	86	3	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND	250	234	94	231	92	1	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND	250	233	93	231	92	1	70-130/30
78-87-5	1,2-Dichloropropane	ND	250	224	90	219	88	2	70-130/30
142-28-9	1,3-Dichloropropane	ND	250	231	92	235	94	2	70-130/30
594-20-7	2,2-Dichloropropane	ND	250	193	77	190	76	2	70-130/30
563-58-6	1,1-Dichloropropene	ND	250	235	94	227	91	3	70-130/30
10061-01-5	cis-1,3-Dichloropropene	ND	250	200	80	199	80	1	70-130/30

# Matrix Spike/Matrix Spike Duplicate Summary

Page 2 of 3

**Job Number:** M83376  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC:Willow Brook & Pond 2008 Monitoring

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M83210-3MS	P37569.D	5	06/09/09	AMY	n/a	n/a	MSP1243
M83210-3MSD	P37570.D	5	06/09/09	AMY	n/a	n/a	MSP1243
M83210-3	P37564.D	1	06/09/09	AMY	n/a	n/a	MSP1243

The QC reported here applies to the following samples:

Method: SW846 8260B

M83376-1, M83376-3, M83376-6, M83376-8, M83376-10, M83376-12, M83376-14

CAS No.	Compound	M83210-3 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	ND	250	187	75	188	75	1	70-130/30
100-41-4	Ethylbenzene	ND	250	257	103	242	97	6	70-130/30
76-13-1	Freon 113	ND	250	232	93	229	92	1	70-130/30
87-68-3	Hexachlorobutadiene	ND	250	220	88	219	88	0	70-130/30
591-78-6	2-Hexanone	ND	250	185	74	193	77	4	70-130/30
98-82-8	Isopropylbenzene	ND	250	278	111	266	106	4	70-130/30
99-87-6	p-Isopropyltoluene	ND	250	254	102	249	100	2	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND	250	224	90	228	91	2	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	250	197	79	207	83	5	70-130/30
74-95-3	Methylene bromide	ND	250	232	93	234	94	1	70-130/30
75-09-2	Methylene chloride	ND	250	217	87	213	85	2	70-130/30
91-20-3	Naphthalene	ND	250	190	76	192	77	1	70-130/30
103-65-1	n-Propylbenzene	ND	250	270	108	257	103	5	70-130/30
100-42-5	Styrene	ND	250	225	90	221	88	2	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND	250	239	96	232	93	3	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND	250	234	94	231	92	1	70-130/30
127-18-4	Tetrachloroethene	ND	250	244	98	238	95	2	70-130/30
109-99-9	Tetrahydrofuran	ND	250	212	85	230	92	8	70-130/30
108-88-3	Toluene	ND	250	233	93	230	92	1	70-130/30
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	250	215	86	225	90	5	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND	250	187	75	196	78	5	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND	250	196	78	199	80	2	70-130/30
71-55-6	1,1,1-Trichloroethane	ND	250	222	89	211	84	5	70-130/30
79-00-5	1,1,2-Trichloroethane	ND	250	225	90	228	91	1	70-130/30
79-01-6	Trichloroethene	ND	250	237	95	224	90	6	70-130/30
75-69-4	Trichlorofluoromethane	ND	250	202	81	198	79	2	70-130/30
96-18-4	1,2,3-Trichloropropane	ND	250	224	90	221	88	1	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND	250	291	116	259	104	12	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND	250	261	104	245	98	6	70-130/30
75-01-4	Vinyl chloride	ND	250	270	108	255	102	6	70-130/30
	m,p-Xylene	ND	500	527	105	489	98	7	70-130/30
95-47-6	o-Xylene	ND	250	243	97	236	94	3	70-130/30

## Matrix Spike/Matrix Spike Duplicate Summary

Page 3 of 3

**Job Number:** M83376

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC:Willow Brook & Pond 2008 Monitoring

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M83210-3MS	P37569.D	5	06/09/09	AMY	n/a	n/a	MSP1243
M83210-3MSD	P37570.D	5	06/09/09	AMY	n/a	n/a	MSP1243
M83210-3	P37564.D	1	06/09/09	AMY	n/a	n/a	MSP1243

The QC reported here applies to the following samples:

Method: SW846 8260B

M83376-1, M83376-3, M83376-6, M83376-8, M83376-10, M83376-12, M83376-14

CAS No.	Surrogate Recoveries	MS	MSD	M83210-3	Limits
1868-53-7	Dibromofluoromethane	93%	94%	105%	70-130%
2037-26-5	Toluene-D8	99%	98%	100%	70-130%
460-00-4	4-Bromofluorobenzene	104%	102%	106%	70-130%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 3

**Job Number:** M83376  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC:Willow Brook & Pond 2008 Monitoring

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M83428-1MS	N34529.D	5	06/18/09	WC	n/a	n/a	MSN1279
M83428-1MSD	N34530.D	5	06/18/09	WC	n/a	n/a	MSN1279
M83428-1	N34528.D	1	06/18/09	WC	n/a	n/a	MSN1279

The QC reported here applies to the following samples:

Method: SW846 8260B

M83376-5

CAS No.	Compound	M83428-1 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND	250	216	86	219	88	1	70-130/30
107-13-1	Acrylonitrile	ND	1250	1160	93	1190	95	3	70-130/30
71-43-2	Benzene	4.6	250	242	95	239	94	1	70-130/30
108-86-1	Bromobenzene	ND	250	222	89	228	91	3	70-130/30
75-27-4	Bromodichloromethane	ND	250	277	111	270	108	3	70-130/30
75-25-2	Bromoform	ND	250	273	109	276	110	1	70-130/30
74-83-9	Bromomethane	ND	250	217	87	240	96	10	70-130/30
78-93-3	2-Butanone (MEK)	ND	250	258	103	274	110	6	70-130/30
104-51-8	n-Butylbenzene	ND	250	221	88	232	93	5	70-130/30
135-98-8	sec-Butylbenzene	ND	250	225	90	232	93	3	70-130/30
98-06-6	tert-Butylbenzene	ND	250	227	91	232	93	2	70-130/30
75-15-0	Carbon disulfide	1.2	250	264	105	265	106	0	70-130/30
56-23-5	Carbon tetrachloride	ND	250	331	132* a	324	130	2	70-130/30
108-90-7	Chlorobenzene	ND	250	242	97	241	96	0	70-130/30
75-00-3	Chloroethane	ND	250	236	94	238	95	1	70-130/30
67-66-3	Chloroform	ND	250	256	102	258	103	1	70-130/30
74-87-3	Chloromethane	ND	250	178	71	185	74	4	70-130/30
95-49-8	o-Chlorotoluene	0.31	250	220	88	221	88	0	70-130/30
106-43-4	p-Chlorotoluene	0.31	250	219	87	223	89	2	70-130/30
96-12-8	1,2-Dibromo-3-chloropropane	ND	250	239	96	253	101	6	70-130/30
124-48-1	Dibromochloromethane	ND	250	293	117	299	120	2	70-130/30
106-93-4	1,2-Dibromoethane	ND	250	246	98	246	98	0	70-130/30
95-50-1	1,2-Dichlorobenzene	ND	250	229	92	231	92	1	70-130/30
541-73-1	1,3-Dichlorobenzene	ND	250	228	91	233	93	2	70-130/30
106-46-7	1,4-Dichlorobenzene	ND	250	219	88	224	90	2	70-130/30
75-71-8	Dichlorodifluoromethane	ND	250	198	79	215	86	8	70-130/30
75-34-3	1,1-Dichloroethane	ND	250	241	96	239	96	1	70-130/30
107-06-2	1,2-Dichloroethane	0.25	250	256	102	256	102	0	70-130/30
75-35-4	1,1-Dichloroethene	ND	250	239	96	242	97	1	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND	250	262	105	260	104	1	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND	250	243	97	248	99	2	70-130/30
78-87-5	1,2-Dichloropropane	ND	250	231	92	227	91	2	70-130/30
142-28-9	1,3-Dichloropropane	ND	250	241	96	242	97	0	70-130/30
594-20-7	2,2-Dichloropropane	ND	250	313	125	305	122	3	70-130/30
563-58-6	1,1-Dichloropropene	ND	250	245	98	242	97	1	70-130/30
10061-01-5	cis-1,3-Dichloropropene	ND	250	273	109	275	110	1	70-130/30

# Matrix Spike/Matrix Spike Duplicate Summary

Page 2 of 3

**Job Number:** M83376  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC:Willow Brook & Pond 2008 Monitoring

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M83428-1MS	N34529.D	5	06/18/09	WC	n/a	n/a	MSN1279
M83428-1MSD	N34530.D	5	06/18/09	WC	n/a	n/a	MSN1279
M83428-1	N34528.D	1	06/18/09	WC	n/a	n/a	MSN1279

The QC reported here applies to the following samples:

Method: SW846 8260B

M83376-5

CAS No.	Compound	M83428-1 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	ND		250	271	108	268	107	1	70-130/30
100-41-4	Ethylbenzene	3.8		250	241	95	241	95	0	70-130/30
76-13-1	Freon 113	ND		250	264	106	263	105	0	70-130/30
87-68-3	Hexachlorobutadiene	ND		250	239	96	252	101	5	70-130/30
591-78-6	2-Hexanone	1.8		250	226	90	243	96	7	70-130/30
98-82-8	Isopropylbenzene	1.1		250	224	89	226	90	1	70-130/30
99-87-6	p-Isopropyltoluene	ND		250	230	92	237	95	3	70-130/30
1634-04-4	Methyl Tert Butyl Ether	13.8		250	295	112	300	114	2	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		250	247	99	255	102	3	70-130/30
74-95-3	Methylene bromide	ND		250	273	109	274	110	0	70-130/30
75-09-2	Methylene chloride	ND		250	244	98	242	97	1	70-130/30
91-20-3	Naphthalene	ND		250	210	84	231	92	10	70-130/30
103-65-1	n-Propylbenzene	ND		250	224	90	229	92	2	70-130/30
100-42-5	Styrene	ND		250	231	92	232	93	0	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		250	276	110	274	110	1	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		250	213	85	219	88	3	70-130/30
127-18-4	Tetrachloroethene	ND		250	232	93	234	94	1	70-130/30
109-99-9	Tetrahydrofuran	ND		250	250	100	251	100	0	70-130/30
108-88-3	Toluene	0.79		250	246	98	244	97	1	70-130/30
110-57-6	Trans-1,4-Dichloro-2-Butene	ND		250	238	95	248	99	4	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		250	227	91	243	97	7	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		250	220	88	231	92	5	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		250	274	110	271	108	1	70-130/30
79-00-5	1,1,2-Trichloroethane	0.48		250	246	98	246	98	0	70-130/30
79-01-6	Trichloroethene	ND		250	245	98	241	96	2	70-130/30
75-69-4	Trichlorofluoromethane	ND		250	247	99	247	99	0	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		250	226	90	233	93	3	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		250	225	90	233	93	3	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		250	224	90	227	91	1	70-130/30
75-01-4	Vinyl chloride	ND		250	282	113	283	113	0	70-130/30
	m,p-Xylene	ND		500	477	95	476	95	0	70-130/30
95-47-6	o-Xylene	ND		250	239	96	239	96	0	70-130/30

## Matrix Spike/Matrix Spike Duplicate Summary

Page 3 of 3

**Job Number:** M83376

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC:Willow Brook & Pond 2008 Monitoring

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M83428-1MS	N34529.D	5	06/18/09	WC	n/a	n/a	MSN1279
M83428-1MSD	N34530.D	5	06/18/09	WC	n/a	n/a	MSN1279
M83428-1	N34528.D	1	06/18/09	WC	n/a	n/a	MSN1279

The QC reported here applies to the following samples:

Method: SW846 8260B

M83376-5

CAS No.	Surrogate Recoveries	MS	MSD	M83428-1	Limits
1868-53-7	Dibromofluoromethane	108%	109%	114%	70-130%
2037-26-5	Toluene-D8	101%	99%	101%	70-130%
460-00-4	4-Bromofluorobenzene	91%	91%	95%	70-130%

(a) Outside control limits. Associated samples are non-detect for this compound.

# Volatile Internal Standard Area Summary

Page 1 of 1

**Job Number:** M83376  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC:Willow Brook & Pond 2008 Monitoring

**Check Std:** MSN1279-CC1271 **Injection Date:** 06/18/09  
**Lab File ID:** N34523.D **Injection Time:** 12:02  
**Instrument ID:** GCMSN **Method:** SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	148419	8.64	269779	9.50	159045	12.75	143412	15.31	104399	6.22
Upper Limit <sup>a</sup>	296838	9.14	539558	10.00	318090	13.25	286824	15.81	208798	6.72
Lower Limit <sup>b</sup>	74210	8.14	134890	9.00	79523	12.25	71706	14.81	52200	5.72

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSN1279-BS	148419	8.64	269779	9.50	159045	12.75	143412	15.31	104399	6.22
MSN1279-MB	136135	8.64	255482	9.50	144742	12.76	120027	15.31	99186	6.22
ZZZZZZ	132382	8.64	252041	9.51	141281	12.76	118668	15.31	151626	6.22
M83376-5	127467	8.64	242689	9.51	137331	12.76	114284	15.31	100423	6.22
M83428-1	129995	8.64	247393	9.51	140413	12.75	117942	15.31	89228	6.22
M83428-1MS	141489	8.64	261707	9.50	158160	12.76	143162	15.31	90513	6.22
M83428-1MSD	146917	8.64	273800	9.51	165336	12.75	146547	15.31	101560	6.22
ZZZZZZ	170590	8.64	313776	9.50	175547	12.76	149921	15.31	111955	6.22
ZZZZZZ	166418	8.64	306642	9.50	176828	12.75	160470	15.31	98718	6.22
ZZZZZZ	185754	8.64	335570	9.50	205866	12.75	217672	15.32	117364	6.22
ZZZZZZ	224616	8.64	387790	9.51	225033	12.76	216095	15.31	144732	6.22
ZZZZZZ	222919	8.64	386206	9.50	220590	12.75	191468	15.31	145103	6.22
ZZZZZZ	213552	8.64	372101	9.50	207980	12.76	184690	15.31	145607	6.22

**IS 1** = Pentafluorobenzene  
**IS 2** = 1,4-Difluorobenzene  
**IS 3** = Chlorobenzene-D5  
**IS 4** = 1,4-Dichlorobenzene-d4  
**IS 5** = Tert Butyl Alcohol-D9

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

# Volatile Internal Standard Area Summary

Page 1 of 1

**Job Number:** M83376  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC:Willow Brook & Pond 2008 Monitoring

**Check Std:** MSP1243-CC1243  
**Lab File ID:** P37557A.D  
**Instrument ID:** GCMSP  
**Injection Date:** 06/09/09  
**Injection Time:** 15:17  
**Method:** SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	73631	8.89	133686	9.76	84623	13.01	73295	15.57	41547	6.49
Upper Limit <sup>a</sup>	147262	9.39	267372	10.26	169246	13.51	146590	16.07	83094	6.99
Lower Limit <sup>b</sup>	36816	8.39	66843	9.26	42312	12.51	36648	15.07	20774	5.99

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSP1243-BS	73631	8.89	133686	9.76	84623	13.01	73295	15.57	41547	6.49
MSP1243-MB	57615	8.90	102993	9.76	64772	13.01	48230	15.57	38376	6.52
ZZZZZZ	55854	8.89	103584	9.76	64185	13.01	48519	15.57	35619	6.52
ZZZZZZ	55608	8.90	100905	9.76	63098	13.01	46852	15.57	32987	6.51
ZZZZZZ	51376	8.89	96673	9.76	60662	13.01	44908	15.58	26598	6.54
M83210-3	51604	8.90	95844	9.77	60314	13.01	43920	15.58	30497	6.52
ZZZZZZ	53096	8.90	95727	9.76	60032	13.01	43545	15.58	31143	6.52
ZZZZZZ	55287	8.89	106595	9.76	73487	13.01	59529	15.57	36406	6.52
ZZZZZZ	62418	8.89	115749	9.76	83502	13.01	72094	15.57	42117	6.50
ZZZZZZ	66620	8.89	117505	9.76	80190	13.01	69261	15.57	42061	6.51
M83210-3MS	72750	8.89	134414	9.76	83653	13.01	70507	15.57	41426	6.50
M83210-3MSD	73965	8.89	135611	9.76	83952	13.01	71759	15.57	40629	6.50
M83376-1	66749	8.90	119609	9.76	73838	13.01	57527	15.57	39148	6.51
M83376-3	62142	8.89	115225	9.76	69719	13.01	53246	15.57	31699	6.52
M83376-6	59290	8.89	107403	9.77	68163	13.01	51310	15.58	32748	6.51
M83376-8	54524	8.89	103420	9.76	63791	13.01	47737	15.58	33059	6.54
M83376-10	54993	8.90	100632	9.76	62234	13.01	46710	15.57	31143	6.52
M83376-12	54109	8.90	100369	9.76	62418	13.01	45725	15.57	32540	6.51
M83376-14	52579	8.90	98384	9.77	61013	13.01	44982	15.58	31018	6.51
ZZZZZZ	46092	8.90	84196	9.77	54047	13.01	38076	15.57	32347	6.51

**IS 1** = Pentafluorobenzene  
**IS 2** = 1,4-Difluorobenzene  
**IS 3** = Chlorobenzene-D5  
**IS 4** = 1,4-Dichlorobenzene-d4  
**IS 5** = Tert Butyl Alcohol-D9

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.



# Volatile Surrogate Recovery Summary

Page 1 of 1

**Job Number:** M83376

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC:Willow Brook & Pond 2008 Monitoring

**Method:** SW846 8260B

**Matrix:** AQ

**Samples and QC shown here apply to the above method**

Lab Sample ID	Lab File ID	S1	S2	S3
M83376-1	P37571.D	96.0	100.0	102.0
M83376-3	P37572.D	99.0	99.0	104.0
M83376-5	N34527.D	115.0	101.0	94.0
M83376-6	P37573.D	98.0	101.0	106.0
M83376-8	P37574.D	103.0	98.0	105.0
M83376-10	P37575.D	102.0	100.0	104.0
M83376-12	P37576.D	101.0	100.0	105.0
M83376-14	P37577.D	104.0	99.0	106.0
M83210-3MS	P37569.D	93.0	99.0	104.0
M83210-3MSD	P37570.D	94.0	98.0	102.0
M83428-1MS	N34529.D	108.0	101.0	91.0
M83428-1MSD	N34530.D	109.0	99.0	91.0
MSN1279-BS	N34523A.D	106.0	99.0	89.0
MSN1279-MB	N34525.D	111.0	99.0	95.0
MSP1243-BS	P37557A.D	90.0	100.0	100.0
MSP1243-MB	P37560.D	98.0	101.0	107.0

## Surrogate Compounds

## Recovery Limits

**S1** = Dibromofluoromethane

70-130%

**S2** = Toluene-D8

70-130%

**S3** = 4-Bromofluorobenzene

70-130%



## GC Semi-volatiles

### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries

## Method Blank Summary

Page 1 of 1

**Job Number:** M83376

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC:Willow Brook & Pond 2008 Monitoring

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP18693-MB	BC27933.D	1	06/16/09	DG	06/09/09	OP18693	GBC1514

The QC reported here applies to the following samples:

Method: CT-ETPH 7/06

M83376-1, M83376-3, M83376-6, M83376-8, M83376-10, M83376-12, M83376-14

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	ND	0.080	mg/l	

CAS No.	Surrogate Recoveries	Limits
3386-33-2	1-Chlorooctadecane	68% 50-149%

## Method Blank Summary

Page 1 of 1

**Job Number:** M83376  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC:Willow Brook & Pond 2008 Monitoring

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP18709-MB	BB26187.D	1	06/16/09	CZ	06/10/09	OP18709	GBB1074

The QC reported here applies to the following samples:

Method: SW846 8082

M83376-1, M83376-3, M83376-6, M83376-8, M83376-10, M83376-12, M83376-14

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	97%	30-150%
877-09-8	Tetrachloro-m-xylene	87%	30-150%
2051-24-3	Decachlorobiphenyl	54%	30-150%
2051-24-3	Decachlorobiphenyl	46%	30-150%

## Blank Spike Summary

Page 1 of 1

**Job Number:** M83376

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC:Willow Brook & Pond 2008 Monitoring

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP18693-BS	BC27934.D	1	06/16/09	DG	06/09/09	OP18693	GBC1514

The QC reported here applies to the following samples:

Method: CT-ETPH 7/06

M83376-1, M83376-3, M83376-6, M83376-8, M83376-10, M83376-12, M83376-14

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	CT-DRO (C9-C36)	0.7	0.692	99	60-120

CAS No.	Surrogate Recoveries	BSP	Limits
3386-33-2	1-Chlorooctadecane	66%	50-149%

6.2.1

6

## Blank Spike Summary

Page 1 of 1

**Job Number:** M83376

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC:Willow Brook & Pond 2008 Monitoring

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP18709-BS	BB26195.D	1	06/16/09	CZ	06/10/09	OP18709	GBB1074

The QC reported here applies to the following samples:

Method: SW846 8082

M83376-1, M83376-3, M83376-6, M83376-8, M83376-10, M83376-12, M83376-14

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
12674-11-2	Aroclor 1016	2	2.0	100	40-140
11104-28-2	Aroclor 1221		ND		40-140
11141-16-5	Aroclor 1232		ND		40-140
53469-21-9	Aroclor 1242		ND		40-140
12672-29-6	Aroclor 1248		ND		40-140
11097-69-1	Aroclor 1254		ND		40-140
11096-82-5	Aroclor 1260	2	1.9	95	40-140
37324-23-5	Aroclor 1262		ND		40-140
11100-14-4	Aroclor 1268		ND		40-140

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	104%	30-150%
877-09-8	Tetrachloro-m-xylene	95%	30-150%
2051-24-3	Decachlorobiphenyl	58%	30-150%
2051-24-3	Decachlorobiphenyl	50%	30-150%

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

**Job Number:** M83376

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC:Willow Brook & Pond 2008 Monitoring

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP18693-MS	BC27935.D	1	06/16/09	DG	06/09/09	OP18693	GBC1514
OP18693-MSD	BC27936.D	1	06/16/09	DG	06/09/09	OP18693	GBC1514
M83410-5	BC27938.D	1	06/16/09	DG	06/09/09	OP18693	GBC1514

The QC reported here applies to the following samples:

Method: CT-ETPH 7/06

M83376-1, M83376-3, M83376-6, M83376-8, M83376-10, M83376-12, M83376-14

CAS No.	Compound	M83410-5 mg/l	Spike Q	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	CT-DRO (C9-C36)	ND	0.7	0.698	100	0.701	100	0	50-129/26

CAS No.	Surrogate Recoveries	MS	MSD	M83410-5	Limits
3386-33-2	1-Chlorooctadecane	80%	77%	84%	50-149%

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

**Job Number:** M83376

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC:Willow Brook & Pond 2008 Monitoring

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP18709-MS	BB26196.D	1	06/16/09	CZ	06/10/09	OP18709	GBB1074
OP18709-MSD	BB26197.D	1	06/16/09	CZ	06/10/09	OP18709	GBB1074
M83410-9	BB26198.D	1	06/16/09	CZ	06/10/09	OP18709	GBB1074

The QC reported here applies to the following samples:

Method: SW846 8082

M83376-1, M83376-3, M83376-6, M83376-8, M83376-10, M83376-12, M83376-14

CAS No.	Compound	M83410-9 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	ND	2	1.8	90	2.0	100	11	40-140/50
11104-28-2	Aroclor 1221	ND		ND		ND		nc	40-140/50
11141-16-5	Aroclor 1232	ND		ND		ND		nc	40-140/50
53469-21-9	Aroclor 1242	ND		ND		ND		nc	40-140/50
12672-29-6	Aroclor 1248	ND		ND		ND		nc	40-140/50
11097-69-1	Aroclor 1254	ND		ND		ND		nc	40-140/50
11096-82-5	Aroclor 1260	ND	2	1.7	85	1.9	95	11	40-140/50
37324-23-5	Aroclor 1262	ND		ND		ND		nc	40-140/50
11100-14-4	Aroclor 1268	ND		ND		ND		nc	40-140/50

CAS No.	Surrogate Recoveries	MS	MSD	M83410-9	Limits
877-09-8	Tetrachloro-m-xylene	92%	101%	97%	30-150%
877-09-8	Tetrachloro-m-xylene	85%	93%	89%	30-150%
2051-24-3	Decachlorobiphenyl	48%	58%	58%	30-150%
2051-24-3	Decachlorobiphenyl	42%	50%	52%	30-150%



# Semivolatile Surrogate Recovery Summary

Page 1 of 1

**Job Number:** M83376

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC:Willow Brook & Pond 2008 Monitoring

**Method:** CT-ETPH 7/06

**Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 <sup>a</sup>
M83376-1	BC27952.D	67.0
M83376-3	BC27953.D	80.0
M83376-6	BC27954.D	80.0
M83376-8	BC27955.D	87.0
M83376-10	BC27956.D	80.0
M83376-12	BC27957.D	74.0
M83376-14	BC27958.D	81.0
OP18693-BS	BC27934.D	66.0
OP18693-MB	BC27933.D	68.0
OP18693-MS	BC27935.D	80.0
OP18693-MSD	BC27936.D	77.0

Surrogate Compounds	Recovery Limits
------------------------	--------------------

S1 = 1-Chlorooctadecane	50-149%
-------------------------	---------

(a) Recovery from GC signal #1

6.4.1

6

## Semivolatile Surrogate Recovery Summary

Page 1 of 1

**Job Number:** M83376

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC:Willow Brook & Pond 2008 Monitoring

**Method:** SW846 8082

**Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 <sup>a</sup>	S1 <sup>b</sup>	S2 <sup>a</sup>	S2 <sup>b</sup>
M83376-1	EF68557.D	93.0	91.0	60.0	60.0
M83376-3	EF68558.D	92.0	89.0	73.0	72.0
M83376-6	EF68559.D	104.0	103.0	88.0	84.0
M83376-8	EF68560.D	104.0	105.0	87.0	86.0
M83376-10	EF68561.D	108.0	105.0	76.0	74.0
M83376-12	EF68572.D	100.0	90.0	75.0	78.0
M83376-14	EF68574.D	102.0	104.0	89.0	90.0
OP18709-BS	BB26195.D	104.0	95.0	58.0	50.0
OP18709-MB	BB26187.D	97.0	87.0	54.0	46.0
OP18709-MS	BB26196.D	92.0	85.0	48.0	42.0
OP18709-MSD	BB26197.D	101.0	93.0	58.0	50.0

### Surrogate Compounds

### Recovery Limits

**S1** = Tetrachloro-m-xylene

30-150%

**S2** = Decachlorobiphenyl

30-150%

(a) Recovery from GC signal #1

(b) Recovery from GC signal #2

6.4.2

6



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## Metals Analysis

### QC Data Summaries

---

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: M83376  
Account: LEA - Loureiro Eng. Associates  
Project: UTC:Willow Brook & Pond 2008 Monitoring

QC Batch ID: MP13617  
Matrix Type: AQUEOUS

Methods: SW846 7470A  
Units: ug/l

Prep Date: 06/09/09

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.20	.035	.048	-0.0030	<0.20

Associated samples MP13617: M83376-2, M83376-4, M83376-7, M83376-9, M83376-11, M83376-13, M83376-15

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

7.1.1  
7

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: M83376  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC:Willow Brook & Pond 2008 Monitoring

QC Batch ID: MP13617  
 Matrix Type: AQUEOUS

Methods: SW846 7470A  
 Units: ug/l

Prep Date: 06/09/09 06/09/09

Metal	M83316-6 Original MS		Spikelot HGRWS1	% Rec	QC Limits	M83316-6 Original DUP		RPD	QC Limits
Mercury	0.0	2.9	3	96.7	75-125	0.0	0.0	NC	0-20

Associated samples MP13617: M83376-2, M83376-4, M83376-7, M83376-9, M83376-11, M83376-13, M83376-15

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: M83376  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC:Willow Brook & Pond 2008 Monitoring

QC Batch ID: MP13617  
 Matrix Type: AQUEOUS

Methods: SW846 7470A  
 Units: ug/l

Prep Date: 06/09/09 06/09/09

Metal	BSP Result	Spikelot HGRWS1	% Rec	QC Limits	BSD Result	Spikelot HGRWS1	% Rec	BSD RPD	QC Limit
Mercury	3.0	3	100.0	80-120	3.0	3	100.0	0.0	20

Associated samples MP13617: M83376-2, M83376-4, M83376-7, M83376-9, M83376-11, M83376-13, M83376-15

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (anr) Analyte not requested

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: M83376  
Account: LEA - Loureiro Eng. Associates  
Project: UTC:Willow Brook & Pond 2008 Monitoring

QC Batch ID: MP13622  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date: 06/10/09

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	14	31		
Antimony	6.0	2.9	3		
Arsenic	10	2.7	3.2	-0.080	<10
Barium	200	.64	1.2	0.53	<200
Beryllium	4.0	.17	.3		
Boron	100	2.3	4.8		
Cadmium	4.0	.24	.3	0.26	<4.0
Calcium	5000	4.7	40		
Chromium	10	.51	1.4	0.11	<10
Cobalt	50	.76	1		
Copper	25	1.1	1.8	-1.0	<25
Iron	100	11	29		
Lead	5.0	1.3	1.8	1.4	<5.0
Magnesium	5000	8	10		
Manganese	15	.17	1.3		
Molybdenum	100	.5	1.4		
Nickel	40	.65	1	0.29	<40
Potassium	5000	25	31		
Selenium	10	1.6	3.3	-1.5	<10
Silver	5.0	.64	.7	0.40	<5.0
Sodium	5000	99	210		
Strontium	10	.12	.3		
Thallium	10	2	4.5		
Tin	100	1.6	9.9		
Titanium	50	4.1	5.1		
Tungsten	100	5.4	7		
Vanadium	30	.65	3.5		
Zinc	20	1.1	1.3	0.24	<20

Associated samples MP13622: M83376-2, M83376-4, M83376-7, M83376-9, M83376-11, M83376-13, M83376-15

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: M83376  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC:Willow Brook & Pond 2008 Monitoring

QC Batch ID: MP13622  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 06/10/09 06/10/09

Metal	M83376-4 Original MS		Spikelot MPICP	% Rec	QC Limits	M83376-4 Original DUP		RPD	QC Limits
Aluminum									
Antimony									
Arsenic	0.0	519	500	103.8	75-125	0.0	0.0	NC	0-20
Barium	266	2260	2000	99.7	75-125	266	268	0.7	0-20
Beryllium									
Boron									
Cadmium	1.2	503	500	100.4	75-125	1.2	1.5	22.2 (a)	0-20
Calcium									
Chromium	2.0	491	500	97.8	75-125	2.0	1.9	5.1	0-20
Cobalt									
Copper	20.7	553	500	106.5	75-125	20.7	20.8	0.5	0-20
Iron									
Lead	0.0	1010	1000	101.0	75-125	0.0	2.1	200.0(a)	0-20
Magnesium									
Manganese									
Molybdenum									
Nickel	89.0	584	500	99.0	75-125	89.0	89.3	0.3	0-20
Potassium									
Selenium	2.2	527	500	105.0	75-125	2.2	0.0	200.0(a)	0-20
Silver	0.0	210	200	105.0	75-125	0.0	0.0	NC	0-20
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Tungsten									
Vanadium									
Zinc	4.2	514	500	102.0	75-125	4.2	4.3	2.4	0-20

Associated samples MP13622: M83376-2, M83376-4, M83376-7, M83376-9, M83376-11, M83376-13, M83376-15

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) RPD acceptable due to low duplicate and sample concentrations.



## SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: M83376  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC:Willow Brook & Pond 2008 Monitoring

QC Batch ID: MP13622  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 06/10/09

06/10/09

Metal	BSP Result	Spikelot MPICP	% Rec	QC Limits	BSD Result	Spikelot MPICP	% Rec	BSD RPD	QC Limit
Aluminum									
Antimony									
Arsenic	507	500	101.4	80-120	512	500	102.4	1.0	20
Barium	1990	2000	99.5	80-120	1990	2000	99.5	0.0	20
Beryllium									
Boron									
Cadmium	494	500	98.8	80-120	504	500	100.8	2.0	20
Calcium									
Chromium	485	500	97.0	80-120	492	500	98.4	1.4	20
Cobalt									
Copper	514	500	102.8	80-120	518	500	103.6	0.8	20
Iron									
Lead	998	1000	99.8	80-120	1010	1000	101.0	1.2	20
Magnesium									
Manganese									
Molybdenum									
Nickel	486	500	97.2	80-120	495	500	99.0	1.8	20
Potassium									
Selenium	517	500	103.4	80-120	523	500	104.6	1.2	20
Silver	206	200	103.0	80-120	209	200	104.5	1.4	20
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Tungsten									
Vanadium									
Zinc	497	500	99.4	80-120	509	500	101.8	2.4	20

Associated samples MP13622: M83376-2, M83376-4, M83376-7, M83376-9, M83376-11, M83376-13, M83376-15

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (anr) Analyte not requested

# SERIAL DILUTION RESULTS SUMMARY

Login Number: M83376  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC:Willow Brook & Pond 2008 Monitoring

QC Batch ID: MP13622  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 06/10/09

Metal	M83376-4 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	0.00	0.00	NC	0-10
Barium	266	262	1.5	0-10
Beryllium				
Boron				
Cadmium	1.24	2.97	139.5(a)	0-10
Calcium				
Chromium	1.95	4.03	106.7(a)	0-10
Cobalt				
Copper	20.7	12.0	41.9 (a)	0-10
Iron				
Lead	0.00	0.00	NC	0-10
Magnesium				
Manganese				
Molybdenum				
Nickel	89.0	89.3	0.3	0-10
Potassium				
Selenium	2.16	0.00	100.0(a)	0-10
Silver	0.00	0.00	NC	0-10
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc	4.15	0.00	100.0(a)	0-10

Associated samples MP13622: M83376-2, M83376-4, M83376-7, M83376-9, M83376-11, M83376-13, M83376-15

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).



06/26/09

IT'S ALL IN THE CHEMISTRY

06/26/09

## Technical Report for

Loureiro Eng. Associates

UTC: Willow Brook & Pond 2008 Monitoring

88UT907

Accutest Job Number: M83376R

Sampling Date: 06/04/09

Report to:

Loureiro Eng. Associates

rlmckinney@loureiro.com

ATTN: Robin McKinney

Total number of pages in report: **30**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

  
Reza Pand  
Lab Director

Client Service contact: Kristen Blanchard 508-481-6200

Certifications: MA (M-MA136) CT (PH-0109) NH (2502) RI (00071) ME (MA0136) FL (E87579)  
NY (11791) NJ (MA926) PA (68-01121) NC (653) IL (200018) NAVY USACE

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Test results relate only to samples analyzed.

# Table of Contents

-1-

**Section 1: Sample Summary ..... 3**

**Section 2: Case Narrative/Conformance Summary ..... 4**

**Section 3: Sample Results ..... 5**

**3.1: M83376-1R: 1123432 ..... 6**

**Section 4: Misc. Forms ..... 7**

**4.1: Chain of Custody ..... 8**

**4.2: RCP Form ..... 17**

**4.3: Sample Tracking Chronicle ..... 18**

**Section 5: Metals Analysis - QC Data Summaries ..... 19**

**5.1: Prep QC MP13688: As,Ba,Cd,Cr,Cu,Pb,Ni,Se,Ag,Zn ..... 20**

**5.2: Prep QC MP13693: Hg ..... 28**



Sample Summary

Loureiro Eng. Associates

Job No: M83376R

UTC:Willow Brook & Pond 2008 Monitoring  
Project No: 88UT907

Sample Number	Collected		Matrix Code	Type	Client Sample ID
	Date	Time By			
M83376-1R	06/04/09	12:00 SK	06/04/09	AQ Ground Water	1123432

## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Loureiro Eng. Associates

**Job No** M83376R

**Site:** UTC:Willow Brook & Pond 2008 Monitoring

**Report Date** 6/26/2009 5:03:49 PM

1 Sample was collected on 06/04/2009 and were received at Accutest on 06/04/2009 properly preserved, at 2.1 Deg. C and intact. These Samples received an Accutest job number of M83376R. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### Metals By Method SW846 6010B

**Matrix** AQ

**Batch ID:** MP13688

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M83766-2DUP, M83766-2MS, M83766-2SDL, M83766-2DUP were used as the QC samples for metals.
- RPD(s) for Duplicate for Cadmium, Nickel are outside control limits for sample MP13688-D1. RPD acceptable due to low duplicate and sample concentrations.
- RPD(s) for Serial Dilution for Nickel, Zinc are outside control limits for sample MP13688-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- Only selected metals requested.

### Metals By Method SW846 7470A

**Matrix** AQ

**Batch ID:** MP13693

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M83572-4DUP, M83572-4MS were used as the QC samples for metals.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety. The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(M83376R).



## Sample Results

## Report of Analysis

## Report of Analysis

Client Sample ID: 1123432

Lab Sample ID: M83376-1R

Date Sampled: 06/04/09

Matrix: AQ - Ground Water

Date Received: 06/04/09

Percent Solids: n/a

Project: UTC: Willow Brook &amp; Pond 2008 Monitoring

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	8.9	4.0	ug/l	1	06/22/09	06/25/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Barium	< 200	200	ug/l	1	06/22/09	06/25/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 4.0	4.0	ug/l	1	06/22/09	06/25/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	06/22/09	06/25/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Copper	< 25	25	ug/l	1	06/22/09	06/25/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	06/22/09	06/25/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	06/23/09	06/24/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>4</sup>
Nickel	< 40	40	ug/l	1	06/22/09	06/25/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	06/22/09	06/25/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	06/22/09	06/25/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	06/22/09	06/25/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA10613

(2) Instrument QC Batch: MA10626

(3) Prep QC Batch: MP13688

(4) Prep QC Batch: MP13693

RL = Reporting Limit





## Misc. Forms

### Custody Documents and Other Forms

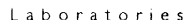
---

Includes the following where applicable:

- Certification Exceptions
- Certification Exceptions (CT)
- Chain of Custody
- RCP Form
- Sample Tracking Chronicle







495 TECHNOLOGY CENTER WEST • BUILDING ONE  
MARLBOROUGH, MA 01752  
TEL: 508-481-6200 • FAX: 508-481-7753

**ACCUTEST JOB #:**

1783376

**ACCUTEST QUOTE #:**

KB2/2004 -453

## 4.1

Page 3 of 9

# CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE  
MARLBOROUGH, MA 01752  
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #: **M83376**  
ACCUTEST QUOTE #:

CLIENT INFORMATION			FACILITY INFORMATION			ANALYTICAL INFORMATION										MATRIX CODES			
NAME			PROJECT NAME													DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOLID SL - SLUDGE OL - OIL LIQ - OTHER LIQUID SOL - OTHER SOLID			
ADDRESS			LOCATION																
CITY, STATE ZIP			PROJECT NO.																
SEND REPORT TO: PHONE #			FAX #																
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION		PRESERVATION												LAB USE ONLY			
		DATE	TIME	SAMPLED BY:	MATRIX	BOTTLES	ACI	NOI	INCI	MSOI	NOI								
1		7/1/03	12:35																
2																			
3																			
4																			
5																			
6																			
7																			
DATA TURNAROUND INFORMATION			DATA DELIVERABLE INFORMATION			COMMENTS/REMARKS													
<input type="checkbox"/> 14 DAYS STANDARD <input type="checkbox"/> 7 DAYS RUSH <input type="checkbox"/> 48 HOUR EMERGENCY <input type="checkbox"/> OTHER			<input type="checkbox"/> STANDARD <input type="checkbox"/> COMMERCIAL "B" <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> STATE FORMS <input type="checkbox"/> OTHER (SPECIFY)																
14 DAY TURNAROUND HARDCOPY, EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED																			
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY																			
RELINQUISHED BY SAMPLER:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:									
1.				1.		2.				2.									
RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:									
3.				3.		4.				4.									
RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		SEAL #		PRESERVE WHERE APPLICABLE		ON ICE		TEMPERATURE							
5.				5.								C							

M83376R: Chain of Custody

Page 4 of 9

CLIENT INFORMATION			FACILITY INFORMATION			ANALYTICAL INFORMATION										MATRIX CODES							
NAME			PROJECT NAME													DW - DRINKING WATER							
ADDRESS			LOCATION													GW - GROUND WATER							
CITY, STATE ZIP			PROJECT NO.													WW - WASTE WATER							
SEND REPORT TO PHONE #			FAX #													SO - SOIL							
																SL - SLUDGE							
																OI - OIL							
																LIO - OTHER LIQUID							
																SOL - OTHER SOLID							
ACCUTEST SAMPLE #		FIELD ID / POINT OF COLLECTION		COLLECTION		PRESERVATION												LAB USE ONLY					
				DATE	TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	NO	NON	PROD	RESID	NOISE										
8																							
9																							
10																							
11																							
12																							
13																							
14																							
DATA TURNAROUND INFORMATION			DATA DELIVERABLE INFORMATION			COMMENTS/REMARKS																	
<input type="checkbox"/> 14 DAYS STANDARD <input type="checkbox"/> 7 DAYS RUSH <input type="checkbox"/> 48 HOUR EMERGENCY <input type="checkbox"/> OTHER			<input type="checkbox"/> STANDARD <input type="checkbox"/> COMMERCIAL "B" <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> STATE FORMS <input type="checkbox"/> OTHER (SPECIFY)			APPROVED BY: _____ 14 DAY TURNAROUND HARDCOPY, EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED.																	
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY																							
RELINQUISHED BY SAMPLER:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:													
1.				1.		2.				2.													
RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:													
3.				3.		4.				4.													
RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		SEAL #		PRESERVE WHERE APPLICABLE		ONICE		TEMPERATURE											
5.				5.								C											

## CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE  
MARLBOROUGH, MA 01752  
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:

M83376

ACCTEST QUOTE #:

[illegible]

## M83376R: Chain of Custody

Page 6 of 9



M83376

**Betty Baer**

**From:** Kristen Blanchard  
**Sent:** Friday, June 05, 2009 8:43 AM  
**To:** Betty Baer  
**Subject:** FW: Modifications to P&W Willow Pond COC  
**Attachments:** Willow Pond Modifications to COC.pdf

**Kristen Blanchard**

Accutest Laboratories of New England

*Accutest - "The national Testing Laboratory with Total Performance you can count on"*  
 Please consider the environment before printing this email.

**From:** Robin McKinney [mailto:rlmckinney@loureiro.com]  
**Sent:** Friday, June 05, 2009 8:41 AM  
**To:** Kristen Blanchard; Scott Parsick  
**Subject:** Modifications to P&W Willow Pond COC

Kristen / Scott,

After reviewing the chain of custody for the P&W Willow Pond groundwater samples, that were submitted yesterday, I identified a few corrections. The corrections are as follows:

- Please take sample 1123432 off hold and analyze for Total RCRA 8 Metals, Cu, Ni, Zn
- Please analyze samples identified as 1123426 for VOCs 8260B, CT ETPH, PCBs 8082 and Total RCRA 8 Metals, Cu, Ni, Zn
- In addition to the Total RCRA 8 Metals, Cu, Ni, Zn analysis, please analyze sample 1123428 for VOCs 8260B, CT ETPH, and PCBs 8082

I attached the modified COC for your file. Please feel free to give me a call at (860) 410-3000 with any questions.

Thanks,

Robin L. McKinney, Project Scientist  
 Loureiro Engineering Associates, Inc.  
 An Employee Owned Company  
 100 Northwest Drive  
 Plainville, CT 06062  
 860.747.6181  
 860.410.3000 Direct  
 860.747.8822 Fax  
[rlmckinney@loureiro.com](mailto:rlmckinney@loureiro.com)

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6/5/2009

M83376R: Chain of Custody  
 Page 7 of 9



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6/5/2009

M83376R: Chain of Custody  
Page 8 of 9

**Frank D'Agostino**

M83374R

**From:** Robin McKinney [rlmckinney@loureiro.com]  
**Sent:** Friday, June 05, 2009 1:54 PM  
**To:** Frank D'Agostino  
**Subject:** P&W Willow Pond Amended COC  
**Attachments:** Willow Pond Modifications to COC.pdf

Frank,

Please take sample 1123432 off hold and analyze for Total RCRA 8 Metals, Cu, Ni and Zn.  
Please analyze sample 1123426 for VOCs 8260B, CT ETPH, PCBs 8082 and Total RCRA 8 Metals, Cu, Ni and Zn.  
Please analyze sample 1123428 for VOCs 8260B, CT ETPH, PCBs 8082, in addition to Total RCRA 8 Metals, Cu, Ni and Zn.  
(The 1123428 sample analyzed for metals should be identified as 1123428uf as we discussed).

If you have any questions, feel free to give me a call.

Thanks,

Robin L. McKinney, Project Scientist  
Loureiro Engineering Associates, Inc.  
An Employee Owned Company  
100 Northwest Drive  
Plainville, CT 06062  
860.747.6181  
860.410.3000 Direct  
860.747.8822 Fax  
[rlmckinney@loureiro.com](mailto:rlmckinney@loureiro.com)

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6/26/2009

M83376R: Chain of Custody  
Page 9 of 9

# Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Laboratory Name: Accutest New England Client: Loureiro Eng. Associates

Project Location: UTC:Willow Brook & Pond 2008 Monitoring Project Number: 88UT624

Sampling Date(s): 6/4/2009

Laboratory Sample ID(s): M83376-1R

Methods: SW846 6010B, SW846 7470A

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CTDEP method-specific Reasonable Confidence Protocol documents)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1A	Where all the method specified preservation and holding time requirements met?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1B	VPH and EPH methods only: Was the VPH or EPH method conducted without significant modifications (See section 11.3 of respective methods)	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
3	Were samples received at an appropriate temperature (<6° C)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
4	Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
5	a) Were reporting limits specified or referenced on the chain-of-custody?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
	b) Were these reporting limits met?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
7	Are project-specific matrix spikes and laboratory duplicates included in this data set?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

**Note:** For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or #1B is "No", the data package does not meet the requirements for "Reasonable Confidence".

I, the undersigned, attest under pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized

Signature:

Position: Lab Director

Printed Name: Reza Tand

Accutest New England

Date: 6/26/2009

Internal Sample Tracking Chronicle

Loureiro Eng. Associates

Job No: M83376R

UTC:Willow Brook & Pond 2008 Monitoring  
Project No: 88UT907

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M83376-1R Collected: 04-JUN-09 12:00 By: SK Received: 04-JUN-09 By: 1123432						

M83376-1R SW846 7470A	24-JUN-09 11:44	MA	23-JUN-09	MA	HG
M83376-1R SW846 6010B	25-JUN-09 14:01	PY	22-JUN-09	EAL	AG,AS,BA,CD,CR,CU,NI,PB,SE,ZN



## Metals Analysis

### QC Data Summaries

---

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: M83376R  
Account: LEA - Loureiro Eng. Associates  
Project: UTC:Willow Brook & Pond 2008 Monitoring

QC Batch ID: MP13688  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date: 06/22/09

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	27	40		
Antimony	6.0	1.4	1.6		
Arsenic	10	1	1.8	-1.4	<10
Barium	200	.57	1.1	0.90	<200
Beryllium	4.0	.15	.4		
Boron	100	.65	2.3		
Cadmium	4.0	.24	1.9	0.0	<4.0
Calcium	5000	7.6	15		
Chromium	10	.81	1.1	-0.40	<10
Cobalt	50	.25	.3		
Copper	25	2.2	4	3.5	<25
Gold	50	1.1	4.2		
Iron	100	3.7	13		
Lead	5.0	1.1	2.7	0.10	<5.0
Magnesium	5000	37	77		
Manganese	15	.12	1.1		
Molybdenum	100	.22	.8		
Nickel	40	.24	1.3	-0.10	<40
Palladium	50	2.2	4		
Platinum	50	9.3	13		
Potassium	5000	39	46		
Selenium	10	1.9	3.5	0.20	<10
Silicon	100	8.9	36		
Silver	5.0	.54	1.3	0.0	<5.0
Sodium	5000	61	160		
Strontium	10	.24	.3		
Thallium	10	1.2	1.3		
Tin	100	.65	1.3		
Titanium	50	.74	.8		
Tungsten	100	5.6	8		
Vanadium	30	.68	1.6		
Zinc	20	.74	1.5	0.0	<20

Associated samples MP13688: M83376-1R

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: M83376R  
Account: LEA - Loureiro Eng. Associates  
Project: UTC:Willow Brook & Pond 2008 Monitoring

QC Batch ID: MP13688  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date:

Metal

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

5.1.1

5

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: M83376R  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC:Willow Brook & Pond 2008 Monitoring

QC Batch ID: MP13688  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 06/22/09 06/22/09

Metal	M83766-2 Original MS		Spikelot MPICP	% Rec	QC Limits	M83766-2 Original DUP		RPD	QC Limits
Aluminum									
Antimony	anr								
Arsenic	0.0	520	500	104.0	75-125	0.0	0.0	NC	0-20
Barium	65.8	2040	2000	98.7	75-125	65.8	66.8	1.5	0-20
Beryllium	anr								
Boron									
Cadmium	0.0	518	500	103.6	75-125	0.0	0.30	200.0(a)	0-20
Calcium									
Chromium	0.0	494	500	98.8	75-125	0.0	0.0	NC	0-20
Cobalt									
Copper	0.0	508	500	101.6	75-125	0.0	0.0	NC	0-20
Gold									
Iron	anr								
Lead	0.0	1010	1000	101.0	75-125	0.0	0.0	NC	0-20
Magnesium									
Manganese	anr								
Molybdenum									
Nickel	0.50	497	500	99.3	75-125	0.50	0.70	33.3 (a)	0-20
Palladium									
Platinum									
Potassium									
Selenium	0.0	531	500	106.2	75-125	0.0	0.0	NC	0-20
Silicon									
Silver	0.0	204	200	102.0	75-125	0.0	0.0	NC	0-20
Sodium									
Strontium									
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	6.9	512	500	101.0	75-125	6.9	6.8	1.5	0-20

Associated samples MP13688: M83376-1R



MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: M83376R  
Account: LEA - Loureiro Eng. Associates  
Project: UTC:Willow Brook & Pond 2008 Monitoring

QC Batch ID: MP13688  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date:

Metal

Results < IDL are shown as zero for calculation purposes

- (\*) Outside of QC limits
- (N) Matrix Spike Rec. outside of QC limits
- (anr) Analyte not requested
- (a) RPD acceptable due to low duplicate and sample concentrations.

## SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: M83376R  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC:Willow Brook & Pond 2008 Monitoring

QC Batch ID: MP13688  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 06/22/09

06/22/09

Metal	BSP Result	Spikelot MPICP	% Rec	QC Limits	BSD Result	Spikelot MPICP	% Rec	BSD RPD	QC Limit
Aluminum									
Antimony	anr								
Arsenic	520	500	104.0	80-120	523	500	104.6	0.6	20
Barium	2020	2000	101.0	80-120	2030	2000	101.5	0.5	20
Beryllium	anr								
Boron									
Cadmium	519	500	103.8	80-120	534	500	106.8	2.8	20
Calcium									
Chromium	501	500	100.2	80-120	507	500	101.4	1.2	20
Cobalt									
Copper	510	500	102.0	80-120	523	500	104.6	2.5	20
Gold									
Iron	anr								
Lead	1030	1000	103.0	80-120	1040	1000	104.0	1.0	20
Magnesium									
Manganese	anr								
Molybdenum									
Nickel	503	500	100.6	80-120	504	500	100.8	0.2	20
Palladium									
Platinum									
Potassium									
Selenium	533	500	106.6	80-120	542	500	108.4	1.7	20
Silicon									
Silver	206	200	103.0	80-120	207	200	103.5	0.5	20
Sodium									
Strontium									
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	511	500	102.2	80-120	525	500	105.0	2.7	20

Associated samples MP13688: M83376-1R

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: M83376R  
Account: LEA - Loureiro Eng. Associates  
Project: UTC:Willow Brook & Pond 2008 Monitoring

QC Batch ID: MP13688  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date:

Metal

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

5.1.3

5

# SERIAL DILUTION RESULTS SUMMARY

Login Number: M83376R  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC:Willow Brook & Pond 2008 Monitoring

QC Batch ID: MP13688  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 06/22/09

Metal	M83766-2 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	anr			
Arsenic	0.00	0.00	NC	0-10
Barium	65.8	68.4	4.0	0-10
Beryllium	anr			
Boron				
Cadmium	0.00	0.00	NC	0-10
Calcium				
Chromium	0.00	0.00	NC	0-10
Cobalt				
Copper	0.00	0.00	NC	0-10
Gold				
Iron	anr			
Lead	0.00	9.40		0-10
Magnesium				
Manganese	anr			
Molybdenum				
Nickel	0.500	0.00	100.0 (a)	0-10
Palladium				
Platinum				
Potassium				
Selenium	0.00	0.00	NC	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium				
Strontium				
Thallium	anr			
Tin				
Titanium				
Tungsten				
Vanadium	anr			
Zinc	6.90	7.90	14.5 (a)	0-10

Associated samples MP13688: M83376-1R

SERIAL DILUTION RESULTS SUMMARY

Login Number: M83376R  
Account: LEA - Loureiro Eng. Associates  
Project: UTC:Willow Brook & Pond 2008 Monitoring

QC Batch ID: MP13688  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date:

Metal

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

5.1.4

5

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: M83376R  
Account: LEA - Loureiro Eng. Associates  
Project: UTC:Willow Brook & Pond 2008 Monitoring

QC Batch ID: MP13693  
Matrix Type: AQUEOUS

Methods: SW846 7470A  
Units: ug/l

Prep Date: 06/23/09

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.20	.035	.048	0.0	<0.20

Associated samples MP13693: M83376-1R

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: M83376R  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC:Willow Brook & Pond 2008 Monitoring

QC Batch ID: MP13693  
 Matrix Type: AQUEOUS

Methods: SW846 7470A  
 Units: ug/l

Prep Date: 06/23/09 06/23/09

Metal	M83572-4 Original MS	Spikelot HGRWS1	% Rec	QC Limits	M83572-4 Original DUP	RPD	QC Limits
Mercury	0.0 2.8	3	93.3	75-125	0.0 0.0	NC	0-20

Associated samples MP13693: M83376-1R

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: M83376R  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC:Willow Brook & Pond 2008 Monitoring

QC Batch ID: MP13693  
 Matrix Type: AQUEOUS

Methods: SW846 7470A  
 Units: ug/l

Prep Date: 06/23/09

06/23/09

Metal	BSP Result	Spikelot HGRWS1	% Rec	QC Limits	BSD Result	Spikelot HGRWS1	% Rec	BSD RPD	QC Limit
Mercury	2.9	3	96.7	80-120	2.9	3	96.7	0.0	20

Associated samples MP13693: M83376-1R

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (anr) Analyte not requested





07/07/09

IT'S ALL IN THE CHEMISTRY

07/07/09

## Technical Report for

Loureiro Eng. Associates

UTC: 2009 Quarterly GW-Willow Pond

88UT907

Accutest Job Number: M83394

Sampling Date: 06/05/09

Report to:

Loureiro Eng. Associates

rlmckinney@loureiro.com

ATTN: Robin McKinney

Total number of pages in report: **113**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Reza Pand  
Lab Director

Client Service contact: Kristen Blanchard 508-481-6200

Certifications: MA (M-MA136) CT (PH-0109) NH (2502) RI (00071) ME (MA0136) FL (E87579)  
NY (11791) NJ (MA926) PA (68-01121) NC (653) IL (200018) NAVY USACE

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Test results relate only to samples analyzed.

# Table of Contents

-1-

<b>Section 1: Sample Summary .....</b>	<b>4</b>
<b>Section 2: Case Narrative/Conformance Summary .....</b>	<b>6</b>
<b>Section 3: Sample Results .....</b>	<b>8</b>
<b>3.1:</b> M83394-1: 1123427 .....	9
<b>3.2:</b> M83394-2: 1123427UF .....	14
<b>3.3:</b> M83394-3: 1123436 .....	15
<b>3.4:</b> M83394-4: 1123436UF .....	20
<b>3.5:</b> M83394-5: 1123437 .....	21
<b>3.6:</b> M83394-6: 1123437UF .....	26
<b>3.7:</b> M83394-7: 1123434 .....	27
<b>3.8:</b> M83394-8: 1123434UF .....	32
<b>3.9:</b> M83394-9: 1123435 .....	33
<b>3.10:</b> M83394-10: 1123435UF .....	38
<b>3.11:</b> M83394-11: 1123443 .....	39
<b>3.12:</b> M83394-12: 1123444 .....	42
<b>3.13:</b> M83394-13: 1123444UF .....	47
<b>3.14:</b> M83394-14: 1123441 .....	48
<b>3.15:</b> M83394-15: 1123441UF .....	53
<b>3.16:</b> M83394-16: 1123438 .....	54
<b>3.17:</b> M83394-17: 1123438UF .....	59
<b>3.18:</b> M83394-18: 1123439 .....	60
<b>3.19:</b> M83394-19: 1123439UF .....	65
<b>3.20:</b> M83394-20: 1123440 .....	66
<b>3.21:</b> M83394-21: 1123440UF .....	71
<b>Section 4: Misc. Forms .....</b>	<b>72</b>
<b>4.1:</b> Certification Exceptions .....	73
<b>4.2:</b> Chain of Custody .....	74
<b>4.3:</b> RCP Form .....	76
<b>4.4:</b> Sample Tracking Chronicle .....	77
<b>Section 5: GC/MS Volatiles - QC Data Summaries .....</b>	<b>81</b>
<b>5.1:</b> Method Blank Summary .....	82
<b>5.2:</b> Blank Spike/Blank Spike Duplicate Summary .....	86
<b>5.3:</b> Matrix Spike/Matrix Spike Duplicate Summary .....	90
<b>5.4:</b> Internal Standard Area Summaries .....	94
<b>5.5:</b> Surrogate Recovery Summaries .....	96
<b>Section 6: GC Semi-volatiles - QC Data Summaries .....</b>	<b>97</b>
<b>6.1:</b> Method Blank Summary .....	98
<b>6.2:</b> Blank Spike Summary .....	100
<b>6.3:</b> Blank Spike/Blank Spike Duplicate Summary .....	101
<b>6.4:</b> Matrix Spike/Matrix Spike Duplicate Summary .....	102
<b>6.5:</b> Surrogate Recovery Summaries .....	104
<b>Section 7: Metals Analysis - QC Data Summaries .....</b>	<b>106</b>

# Table of Contents

Sections:

- 1
- 2
- 3
- 4
- 5
- 6
- 7

-2-

7.1: Prep QC MP13617: Hg .....	107
7.2: Prep QC MP13622: As,Ba,Cd,Cr,Cu,Pb,Ni,Se,Ag,Zn .....	110



Sample Summary

Loureiro Eng. Associates

Job No: M83394

UTC: 2009 Quarterly GW-Willow Pond  
Project No: 88UT907

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
M83394-1	06/05/09	10:45 NE	06/05/09	AQ	Ground Water	1123427
M83394-2	06/05/09	10:45 NE	06/05/09	AQ	Ground Water	1123427UF
M83394-3	06/05/09	12:15 NE	06/05/09	AQ	Ground Water	1123436
M83394-4	06/05/09	12:15 NE	06/05/09	AQ	Ground Water	1123436UF
M83394-5	06/05/09	14:20 NE	06/05/09	AQ	Ground Water	1123437
M83394-6	06/05/09	14:20 NE	06/05/09	AQ	Ground Water	1123437UF
M83394-7	06/05/09	11:05 SK	06/05/09	AQ	Ground Water	1123434
M83394-8	06/05/09	11:05 SK	06/05/09	AQ	Ground Water	1123434UF
M83394-9	06/05/09	13:10 SK	06/05/09	AQ	Ground Water	1123435
M83394-10	06/05/09	13:10 SK	06/05/09	AQ	Ground Water	1123435UF
M83394-11	06/05/09	08:30 NE	06/05/09	AQ	Ground Water	1123443
M83394-12	06/05/09	14:30 NE	06/05/09	AQ	Ground Water	1123444
M83394-13	06/05/09	14:30 NE	06/05/09	AQ	Ground Water	1123444UF



**Sample Summary**  
(continued)

Loureiro Eng. Associates

**Job No:** M83394

UTC: 2009 Quarterly GW-Willow Pond  
Project No: 88UT907

Sample Number	Collected			Received	Matrix		Client Sample ID
	Date	Time	By		Code	Type	
M83394-14	06/05/09	14:40	RD	06/05/09	AQ	Ground Water	1123441
M83394-15	06/05/09	14:40	RD	06/05/09	AQ	Ground Water	1123441UF
M83394-16	06/05/09	10:25	RD	06/05/09	AQ	Ground Water	1123438
M83394-17	06/05/09	10:25	RD	06/05/09	AQ	Ground Water	1123438UF
M83394-18	06/05/09	10:25	RD	06/05/09	AQ	Ground Water	1123439
M83394-19	06/05/09	10:25	RD	06/05/09	AQ	Ground Water	1123439UF
M83394-20	06/05/09	13:00	RD	06/05/09	AQ	Ground Water	1123440
M83394-21	06/05/09	13:00	RD	06/05/09	AQ	Ground Water	1123440UF

## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Loureiro Eng. Associates

**Job No** M83394

**Site:** UTC: 2009 Quarterly GW-Willow Pond

**Report Date** 6/19/2009 2:47:49 PM

21 Sample(s) were collected on 06/05/2009 and were received at Accutest on 06/05/2009 properly preserved, at 2.5 Deg. C and intact. These Samples received an Accutest job number of M83394. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### Volatiles by GCMS By Method SW846 8260B

**Matrix** AQ

**Batch ID:** MSP1247

- All samples were analyzed within the recommended method holding time.
- Sample(s) M83394-14MS, M83394-14MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 2,2-Dichloropropane, Acetone, Tetrahydrofuran are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for Acrylonitrile, Chloromethane, Naphthalene, Vinyl chloride are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for Acrylonitrile, Chloromethane, Vinyl chloride are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Blank Spike Duplicate Recovery(s) for Acetone, Tetrahydrofuran are outside control limits. Blank Spike meets program technical requirements.
- RPD for MSP1247-BSD for 2,2-Dichloropropane: Outside control limits. Blank Spike meets program technical requirements.
- Continuing calibration check standard for acetone, acrylonitrile, 2,2-dichloropropane exceed 30% Difference. This check standard met RCP criteria.
- Initial calibration standard in batch MSP1243 for acetone, 2,2-dichloropropane is employed quadratic regression.
- MS/MSD for Tetrahydrofuran are outside control limits. Blank Spike meets program technical requirements.

**Matrix** AQ

**Batch ID:** MSP1249

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M83437-16MS, M83437-16MSD were used as the QC samples indicated.

### Extractables by GC By Method CT-ETPH 7/06

**Matrix** AQ

**Batch ID:** OP18694

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M83410-6MS, M83410-6MSD were used as the QC samples indicated.

## Extractables by GC By Method SW846 8082

**Matrix** AQ

**Batch ID:** OP18727

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) M83410-16MS, M83410-16MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

## Metals By Method SW846 6010B

**Matrix** AQ

**Batch ID:** MP13622

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M83376-4DUP, M83376-4MS, M83376-4SDL were used as the QC samples for metals.
- RPD(s) for Duplicate for Cadmium, Lead, Selenium are outside control limits for sample MP13622-D1. RPD acceptable due to low duplicate and sample concentrations.
- RPD(s) for Serial Dilution for Cadmium, Chromium, Copper, Selenium, Zinc are outside control limits for sample MP13622-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- Only selected metals requested.

## Metals By Method SW846 7470A

**Matrix** AQ

**Batch ID:** MP13617

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M83316-6DUP, M83316-6MS were used as the QC samples for metals.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety. The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(M83394).



## Sample Results

## Report of Analysis



## Report of Analysis

<b>Client Sample ID:</b>	1123427	<b>Date Sampled:</b>	06/05/09
<b>Lab Sample ID:</b>	M83394-1	<b>Date Received:</b>	06/05/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P37637.D	1	06/12/09	AMY	n/a	n/a	MSP1247
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	1.2	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	23.4	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	15.5	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123427	<b>Date Sampled:</b>	06/05/09
<b>Lab Sample ID:</b>	M83394-1	<b>Date Received:</b>	06/05/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	2.6	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	2.2	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	6.9	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	24.1	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	119%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	1123427		
<b>Lab Sample ID:</b>	M83394-1	<b>Date Sampled:</b>	06/05/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/05/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	105%		70-130%
460-00-4	4-Bromofluorobenzene	105%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1123427  
**Lab Sample ID:** M83394-1  
**Matrix:** AQ - Ground Water  
**Method:** CT-ETPH 7/06 SW846 3510C  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Date Sampled:** 06/05/09  
**Date Received:** 06/05/09  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC27993.D	1	06/18/09	WZ	06/09/09	OP18694	GBC1516
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	0.763	0.084	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	53%		50-149%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1123427  
**Lab Sample ID:** M83394-1  
**Matrix:** AQ - Ground Water  
**Method:** SW846 8082 SW846 3510C  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Date Sampled:** 06/05/09  
**Date Received:** 06/05/09  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB26261.D	1	06/18/09	CZ	06/12/09	OP18727	GBB1076
Run #2							

	Initial Volume	Final Volume
Run #1	860 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.29	ug/l	
11104-28-2	Aroclor 1221	ND	0.29	ug/l	
11141-16-5	Aroclor 1232	ND	0.29	ug/l	
53469-21-9	Aroclor 1242	ND	0.29	ug/l	
12672-29-6	Aroclor 1248	ND	0.29	ug/l	
11097-69-1	Aroclor 1254	ND	0.29	ug/l	
11096-82-5	Aroclor 1260	ND	0.29	ug/l	
37324-23-5	Aroclor 1262	ND	0.29	ug/l	
11100-14-4	Aroclor 1268	ND	0.29	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	117%		30-150%
877-09-8	Tetrachloro-m-xylene	108%		30-150%
2051-24-3	Decachlorobiphenyl	92%		30-150%
2051-24-3	Decachlorobiphenyl	84%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 1123427UF

Lab Sample ID: M83394-2

Matrix: AQ - Ground Water

Date Sampled: 06/05/09

Date Received: 06/05/09

Percent Solids: n/a

Project: UTC: 2009 Quarterly GW-Willow Pond

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Barium	< 200	200	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Cadmium	61.9	4.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Chromium	< 10	10	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Copper	< 25	25	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Lead	< 5.0	5.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Mercury	< 0.20	0.20	ug/l	1	06/09/09	06/10/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>3</sup>
Nickel	1660	40	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Selenium	< 10	10	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Silver	< 5.0	5.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Zinc	< 20	20	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>

(1) Instrument QC Batch: MA10560

(2) Instrument QC Batch: MA10567

(3) Prep QC Batch: MP13617

(4) Prep QC Batch: MP13622

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1123436	<b>Date Sampled:</b>	06/05/09
<b>Lab Sample ID:</b>	M83394-3	<b>Date Received:</b>	06/05/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P37638.D	1	06/12/09	AMY	n/a	n/a	MSP1247
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	32.2	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	7.3	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	62.0	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	3.3	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123436	<b>Date Sampled:</b>	06/05/09
<b>Lab Sample ID:</b>	M83394-3	<b>Date Received:</b>	06/05/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	81.1	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	119%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	1123436	<b>Date Sampled:</b>	06/05/09
<b>Lab Sample ID:</b>	M83394-3	<b>Date Received:</b>	06/05/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	102%		70-130%
460-00-4	4-Bromofluorobenzene	106%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1123436  
**Lab Sample ID:** M83394-3  
**Matrix:** AQ - Ground Water  
**Method:** CT-ETPH 7/06 SW846 3510C  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Date Sampled:** 06/05/09  
**Date Received:** 06/05/09  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC27994.D	1	06/18/09	WZ	06/09/09	OP18694	GBC1516
Run #2							

	Initial Volume	Final Volume
Run #1	700 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	0.134	0.11	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	72%		50-149%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123436		
<b>Lab Sample ID:</b>	M83394-3	<b>Date Sampled:</b>	06/05/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/05/09
<b>Method:</b>	SW846 8082 SW846 3510C	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB26262.D	1	06/18/09	CZ	06/12/09	OP18727	GBB1076
Run #2							

	Initial Volume	Final Volume
Run #1	880 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.28	ug/l	
11104-28-2	Aroclor 1221	ND	0.28	ug/l	
11141-16-5	Aroclor 1232	ND	0.28	ug/l	
53469-21-9	Aroclor 1242	ND	0.28	ug/l	
12672-29-6	Aroclor 1248	ND	0.28	ug/l	
11097-69-1	Aroclor 1254	ND	0.28	ug/l	
11096-82-5	Aroclor 1260	ND	0.28	ug/l	
37324-23-5	Aroclor 1262	ND	0.28	ug/l	
11100-14-4	Aroclor 1268	ND	0.28	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	129%		30-150%
877-09-8	Tetrachloro-m-xylene	120%		30-150%
2051-24-3	Decachlorobiphenyl	123%		30-150%
2051-24-3	Decachlorobiphenyl	110%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 1123436UF

Lab Sample ID: M83394-4

Matrix: AQ - Ground Water

Date Sampled: 06/05/09

Date Received: 06/05/09

Percent Solids: n/a

Project: UTC: 2009 Quarterly GW-Willow Pond

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Barium	333	200	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Cadmium	< 4.0	4.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Chromium	< 10	10	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Copper	< 25	25	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Lead	< 5.0	5.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Mercury	< 0.20	0.20	ug/l	1	06/09/09	06/10/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>3</sup>
Nickel	< 40	40	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Selenium	< 10	10	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Silver	< 5.0	5.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Zinc	< 20	20	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>

(1) Instrument QC Batch: MA10560

(2) Instrument QC Batch: MA10567

(3) Prep QC Batch: MP13617

(4) Prep QC Batch: MP13622

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1123437		
<b>Lab Sample ID:</b>	M83394-5	<b>Date Sampled:</b>	06/05/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/05/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P37655.D	1	06/12/09	AMY	n/a	n/a	MSP1247
Run #2	P37710.D	10	06/17/09	AMY	n/a	n/a	MSP1249

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	6.2	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	42.7	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	17.2	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	9.1	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	141	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123437	<b>Date Sampled:</b>	06/05/09
<b>Lab Sample ID:</b>	M83394-5	<b>Date Received:</b>	06/05/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	5.8	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	354 <sup>a</sup>	10	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	6.2	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	388 <sup>a</sup>	10	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	45.2	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	123%	108%	70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	1123437		
<b>Lab Sample ID:</b>	M83394-5	<b>Date Sampled:</b>	06/05/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/05/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	104%	99%	70-130%
460-00-4	4-Bromofluorobenzene	107%	107%	70-130%

(a) Result is from Run# 2

ND = Not detected	J = Indicates an estimated value
RL = Reporting Limit	B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range	N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1123437  
**Lab Sample ID:** M83394-5  
**Matrix:** AQ - Ground Water  
**Method:** CT-ETPH 7/06 SW846 3510C  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Date Sampled:** 06/05/09  
**Date Received:** 06/05/09  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC27995.D	1	06/18/09	WZ	06/09/09	OP18694	GBC1516
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	0.452	0.089	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	61%		50-149%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

**Client Sample ID:** 1123437  
**Lab Sample ID:** M83394-5  
**Matrix:** AQ - Ground Water  
**Method:** SW846 8082 SW846 3510C  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Date Sampled:** 06/05/09

**Date Received:** 06/05/09

**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB26263.D	1	06/18/09	CZ	06/12/09	OP18727	GBB1076
Run #2							

	Initial Volume	Final Volume
Run #1	910 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.27	ug/l	
11104-28-2	Aroclor 1221	ND	0.27	ug/l	
11141-16-5	Aroclor 1232	ND	0.27	ug/l	
53469-21-9	Aroclor 1242	ND	0.27	ug/l	
12672-29-6	Aroclor 1248	ND	0.27	ug/l	
11097-69-1	Aroclor 1254	ND	0.27	ug/l	
11096-82-5	Aroclor 1260	ND	0.27	ug/l	
37324-23-5	Aroclor 1262	ND	0.27	ug/l	
11100-14-4	Aroclor 1268	ND	0.27	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	126%		30-150%
877-09-8	Tetrachloro-m-xylene	119%		30-150%
2051-24-3	Decachlorobiphenyl	124%		30-150%
2051-24-3	Decachlorobiphenyl	113%		30-150%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 1123437UF

Lab Sample ID: M83394-6

Matrix: AQ - Ground Water

Date Sampled: 06/05/09

Date Received: 06/05/09

Percent Solids: n/a

Project: UTC: 2009 Quarterly GW-Willow Pond

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	4.2	4.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Barium	< 200	200	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Cadmium	< 4.0	4.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Chromium	< 10	10	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Copper	69.2	25	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Lead	< 5.0	5.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Mercury	< 0.20	0.20	ug/l	1	06/09/09	06/10/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>3</sup>
Nickel	365	40	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Selenium	< 10	10	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Silver	< 5.0	5.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Zinc	< 20	20	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>

(1) Instrument QC Batch: MA10560

(2) Instrument QC Batch: MA10567

(3) Prep QC Batch: MP13617

(4) Prep QC Batch: MP13622

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1123434	<b>Date Sampled:</b>	06/05/09
<b>Lab Sample ID:</b>	M83394-7	<b>Date Received:</b>	06/05/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P37639.D	1	06/12/09	AMY	n/a	n/a	MSP1247
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123434	<b>Date Sampled:</b>	06/05/09
<b>Lab Sample ID:</b>	M83394-7	<b>Date Received:</b>	06/05/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	121%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123434	<b>Date Sampled:</b>	06/05/09
<b>Lab Sample ID:</b>	M83394-7	<b>Date Received:</b>	06/05/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	103%		70-130%
460-00-4	4-Bromofluorobenzene	102%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123434						
<b>Lab Sample ID:</b>	M83394-7					<b>Date Sampled:</b>	06/05/09
<b>Matrix:</b>	AQ - Ground Water					<b>Date Received:</b>	06/05/09
<b>Method:</b>	CT-ETPH 7/06 SW846 3510C					<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC27996.D	1	06/18/09	WZ	06/09/09	OP18694	GBC1516
Run #2							

	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	ND	0.082	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
3386-33-2	1-Chlorooctadecane	67%		50-149%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123434		
<b>Lab Sample ID:</b>	M83394-7	<b>Date Sampled:</b>	06/05/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/05/09
<b>Method:</b>	SW846 8082 SW846 3510C	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB26265.D	1	06/18/09	CZ	06/12/09	OP18727	GBB1076
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	119%		30-150%
877-09-8	Tetrachloro-m-xylene	111%		30-150%
2051-24-3	Decachlorobiphenyl	118%		30-150%
2051-24-3	Decachlorobiphenyl	108%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1123434UF**Lab Sample ID:** M83394-8**Matrix:** AQ - Ground Water**Date Sampled:** 06/05/09**Date Received:** 06/05/09**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Barium	234	200	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Cadmium	< 4.0	4.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Chromium	< 10	10	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Copper	< 25	25	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Lead	< 5.0	5.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Mercury	< 0.20	0.20	ug/l	1	06/09/09	06/10/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>3</sup>
Nickel	< 40	40	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Selenium	< 10	10	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Silver	< 5.0	5.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Zinc	< 20	20	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>

(1) Instrument QC Batch: MA10560

(2) Instrument QC Batch: MA10567

(3) Prep QC Batch: MP13617

(4) Prep QC Batch: MP13622

RL = Reporting Limit



## Report of Analysis

<b>Client Sample ID:</b>	1123435		
<b>Lab Sample ID:</b>	M83394-9	<b>Date Sampled:</b>	06/05/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/05/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P37640.D	1	06/12/09	AMY	n/a	n/a	MSP1247
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	6.5	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123435	<b>Date Sampled:</b>	06/05/09
<b>Lab Sample ID:</b>	M83394-9	<b>Date Received:</b>	06/05/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	125%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123435	<b>Date Sampled:</b>	06/05/09
<b>Lab Sample ID:</b>	M83394-9	<b>Date Received:</b>	06/05/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	104%		70-130%
460-00-4	4-Bromofluorobenzene	106%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1123435  
**Lab Sample ID:** M83394-9  
**Matrix:** AQ - Ground Water  
**Method:** CT-ETPH 7/06 SW846 3510C  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Date Sampled:** 06/05/09  
**Date Received:** 06/05/09  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC27997.D	1	06/18/09	WZ	06/09/09	OP18694	GBC1516
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	ND	0.084	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	50%		50-149%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1123435**Lab Sample ID:** M83394-9**Date Sampled:** 06/05/09**Matrix:** AQ - Ground Water**Date Received:** 06/05/09**Method:** SW846 8082 SW846 3510C**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB26266.D	1	06/18/09	CZ	06/12/09	OP18727	GBB1076
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	131%		30-150%
877-09-8	Tetrachloro-m-xylene	124%		30-150%
2051-24-3	Decachlorobiphenyl	130%		30-150%
2051-24-3	Decachlorobiphenyl	120%		30-150%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 1123435UF

Lab Sample ID: M83394-10

Matrix: AQ - Ground Water

Date Sampled: 06/05/09

Date Received: 06/05/09

Percent Solids: n/a

Project: UTC: 2009 Quarterly GW-Willow Pond

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Barium	< 200	200	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Cadmium	< 4.0	4.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Chromium	< 10	10	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Copper	< 25	25	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Lead	< 5.0	5.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Mercury	< 0.20	0.20	ug/l	1	06/09/09	06/10/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>3</sup>
Nickel	< 40	40	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Selenium	< 10	10	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Silver	< 5.0	5.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Zinc	< 20	20	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>

(1) Instrument QC Batch: MA10560

(2) Instrument QC Batch: MA10567

(3) Prep QC Batch: MP13617

(4) Prep QC Batch: MP13622

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1123443	<b>Date Sampled:</b>	06/05/09
<b>Lab Sample ID:</b>	M83394-11	<b>Date Received:</b>	06/05/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P37641.D	1	06/12/09	AMY	n/a	n/a	MSP1247
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123443	<b>Date Sampled:</b>	06/05/09
<b>Lab Sample ID:</b>	M83394-11	<b>Date Received:</b>	06/05/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	123%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	1123443	<b>Date Sampled:</b>	06/05/09
<b>Lab Sample ID:</b>	M83394-11	<b>Date Received:</b>	06/05/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	103%		70-130%
460-00-4	4-Bromofluorobenzene	105%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123444		
<b>Lab Sample ID:</b>	M83394-12	<b>Date Sampled:</b>	06/05/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/05/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P37642.D	1	06/12/09	AMY	n/a	n/a	MSP1247
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123444	<b>Date Sampled:</b>	06/05/09
<b>Lab Sample ID:</b>	M83394-12	<b>Date Received:</b>	06/05/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	127%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123444	<b>Date Sampled:</b>	06/05/09
<b>Lab Sample ID:</b>	M83394-12	<b>Date Received:</b>	06/05/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	104%		70-130%
460-00-4	4-Bromofluorobenzene	107%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1123444  
**Lab Sample ID:** M83394-12  
**Matrix:** AQ - Ground Water  
**Method:** CT-ETPH 7/06 SW846 3510C  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Date Sampled:** 06/05/09  
**Date Received:** 06/05/09  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC27999.D	1	06/18/09	WZ	06/09/09	OP18694	GBC1516
Run #2							

	Initial Volume	Final Volume
Run #1	800 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	ND	0.10	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
3386-33-2	1-Chlorooctadecane	50%		50-149%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123444		
<b>Lab Sample ID:</b>	M83394-12	<b>Date Sampled:</b>	06/05/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/05/09
<b>Method:</b>	SW846 8082 SW846 3510C	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB26267.D	1	06/18/09	CZ	06/12/09	OP18727	GBB1076
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.26	ug/l	
11104-28-2	Aroclor 1221	ND	0.26	ug/l	
11141-16-5	Aroclor 1232	ND	0.26	ug/l	
53469-21-9	Aroclor 1242	ND	0.26	ug/l	
12672-29-6	Aroclor 1248	ND	0.26	ug/l	
11097-69-1	Aroclor 1254	ND	0.26	ug/l	
11096-82-5	Aroclor 1260	ND	0.26	ug/l	
37324-23-5	Aroclor 1262	ND	0.26	ug/l	
11100-14-4	Aroclor 1268	ND	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	119%		30-150%
877-09-8	Tetrachloro-m-xylene	114%		30-150%
2051-24-3	Decachlorobiphenyl	82%		30-150%
2051-24-3	Decachlorobiphenyl	76%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1123444UF**Lab Sample ID:** M83394-13**Matrix:** AQ - Ground Water**Date Sampled:** 06/05/09**Date Received:** 06/05/09**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Barium	< 200	200	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Cadmium	< 4.0	4.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Chromium	< 10	10	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Copper	< 25	25	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Lead	< 5.0	5.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Mercury	< 0.20	0.20	ug/l	1	06/09/09	06/10/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>3</sup>
Nickel	< 40	40	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Selenium	< 10	10	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Silver	< 5.0	5.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Zinc	< 20	20	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>

(1) Instrument QC Batch: MA10560

(2) Instrument QC Batch: MA10567

(3) Prep QC Batch: MP13617

(4) Prep QC Batch: MP13622

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1123441		
<b>Lab Sample ID:</b>	M83394-14	<b>Date Sampled:</b>	06/05/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/05/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P37643.D	1	06/12/09	AMY	n/a	n/a	MSP1247
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	1123441	<b>Date Sampled:</b>	06/05/09
<b>Lab Sample ID:</b>	M83394-14	<b>Date Received:</b>	06/05/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	130%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123441	<b>Date Sampled:</b>	06/05/09
<b>Lab Sample ID:</b>	M83394-14	<b>Date Received:</b>	06/05/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	106%		70-130%
460-00-4	4-Bromofluorobenzene	105%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1123441**Lab Sample ID:** M83394-14**Date Sampled:** 06/05/09**Matrix:** AQ - Ground Water**Date Received:** 06/05/09**Method:** CT-ETPH 7/06 SW846 3510C**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC28000.D	1	06/18/09	WZ	06/09/09	OP18694	GBC1516
Run #2							

	Initial Volume	Final Volume
Run #1	800 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
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	CT-DRO (C9-C36)	ND	0.10	mg/l	
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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
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3386-33-2	1-Chlorooctadecane	62%		50-149%
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ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1123441**Lab Sample ID:** M83394-14**Date Sampled:** 06/05/09**Matrix:** AQ - Ground Water**Date Received:** 06/05/09**Method:** SW846 8082 SW846 3510C**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB26268.D	1	06/18/09	CZ	06/12/09	OP18727	GBB1076
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.26	ug/l	
11104-28-2	Aroclor 1221	ND	0.26	ug/l	
11141-16-5	Aroclor 1232	ND	0.26	ug/l	
53469-21-9	Aroclor 1242	ND	0.26	ug/l	
12672-29-6	Aroclor 1248	ND	0.26	ug/l	
11097-69-1	Aroclor 1254	ND	0.26	ug/l	
11096-82-5	Aroclor 1260	ND	0.26	ug/l	
37324-23-5	Aroclor 1262	ND	0.26	ug/l	
11100-14-4	Aroclor 1268	ND	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	120%		30-150%
877-09-8	Tetrachloro-m-xylene	114%		30-150%
2051-24-3	Decachlorobiphenyl	124%		30-150%
2051-24-3	Decachlorobiphenyl	115%		30-150%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 1123441UF

Lab Sample ID: M83394-15

Matrix: AQ - Ground Water

Date Sampled: 06/05/09

Date Received: 06/05/09

Percent Solids: n/a

Project: UTC: 2009 Quarterly GW-Willow Pond

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Barium	< 200	200	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Cadmium	< 4.0	4.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Chromium	< 10	10	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Copper	< 25	25	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Lead	< 5.0	5.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Mercury	< 0.20	0.20	ug/l	1	06/09/09	06/10/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>3</sup>
Nickel	< 40	40	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Selenium	< 10	10	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Silver	< 5.0	5.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Zinc	< 20	20	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>

(1) Instrument QC Batch: MA10560

(2) Instrument QC Batch: MA10567

(3) Prep QC Batch: MP13617

(4) Prep QC Batch: MP13622

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1123438		
<b>Lab Sample ID:</b>	M83394-16	<b>Date Sampled:</b>	06/05/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/05/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P37656.D	1	06/12/09	AMY	n/a	n/a	MSP1247
Run #2	P37711.D	10	06/17/09	AMY	n/a	n/a	MSP1249

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	0.56	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	1.4	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	5.0	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	49.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	59.7	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123438	<b>Date Sampled:</b>	06/05/09
<b>Lab Sample ID:</b>	M83394-16	<b>Date Received:</b>	06/05/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	37.3	1.0	ug/l	
109-99-9	Tetrahydrofuran	24.1	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	4.3	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	296 <sup>a</sup>	10	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	18.4	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	118%	110%	70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	1123438		
<b>Lab Sample ID:</b>	M83394-16	<b>Date Sampled:</b>	06/05/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/05/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	106%	102%	70-130%
460-00-4	4-Bromofluorobenzene	106%	109%	70-130%

(a) Result is from Run# 2

ND = Not detected	J = Indicates an estimated value
RL = Reporting Limit	B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range	N = Indicates presumptive evidence of a compound



## Report of Analysis

**Client Sample ID:** 1123438**Lab Sample ID:** M83394-16**Date Sampled:** 06/05/09**Matrix:** AQ - Ground Water**Date Received:** 06/05/09**Method:** CT-ETPH 7/06 SW846 3510C**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC28001.D	1	06/18/09	WZ	06/09/09	OP18694	GBC1516
Run #2							

	Initial Volume	Final Volume
Run #1	800 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
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	CT-DRO (C9-C36)	0.290	0.10	mg/l	
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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
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3386-33-2	1-Chlorooctadecane	60%		50-149%
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ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123438		
<b>Lab Sample ID:</b>	M83394-16	<b>Date Sampled:</b>	06/05/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/05/09
<b>Method:</b>	SW846 8082 SW846 3510C	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB26269.D	1	06/18/09	CZ	06/12/09	OP18727	GBB1076
Run #2							

	Initial Volume	Final Volume
Run #1	940 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.27	ug/l	
11104-28-2	Aroclor 1221	ND	0.27	ug/l	
11141-16-5	Aroclor 1232	ND	0.27	ug/l	
53469-21-9	Aroclor 1242	ND	0.27	ug/l	
12672-29-6	Aroclor 1248	ND	0.27	ug/l	
11097-69-1	Aroclor 1254	ND	0.27	ug/l	
11096-82-5	Aroclor 1260	ND	0.27	ug/l	
37324-23-5	Aroclor 1262	ND	0.27	ug/l	
11100-14-4	Aroclor 1268	ND	0.27	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	124%		30-150%
877-09-8	Tetrachloro-m-xylene	118%		30-150%
2051-24-3	Decachlorobiphenyl	115%		30-150%
2051-24-3	Decachlorobiphenyl	108%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1123438UF**Lab Sample ID:** M83394-17**Matrix:** AQ - Ground Water**Date Sampled:** 06/05/09**Date Received:** 06/05/09**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	11.4	4.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Barium	304	200	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Cadmium	< 4.0	4.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Chromium	< 10	10	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Copper	< 25	25	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Lead	< 5.0	5.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Mercury	< 0.20	0.20	ug/l	1	06/09/09	06/10/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>3</sup>
Nickel	48.4	40	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Selenium	< 10	10	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Silver	< 5.0	5.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Zinc	< 20	20	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>

(1) Instrument QC Batch: MA10560

(2) Instrument QC Batch: MA10567

(3) Prep QC Batch: MP13617

(4) Prep QC Batch: MP13622

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1123439		
<b>Lab Sample ID:</b>	M83394-18	<b>Date Sampled:</b>	06/05/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/05/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P37657.D	1	06/12/09	AMY	n/a	n/a	MSP1247
Run #2	P37712.D	10	06/17/09	AMY	n/a	n/a	MSP1249

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	0.50	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	1.4	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	5.4	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	51.8	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	63.2	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123439	<b>Date Sampled:</b>	06/05/09
<b>Lab Sample ID:</b>	M83394-18	<b>Date Received:</b>	06/05/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	40.9	1.0	ug/l	
109-99-9	Tetrahydrofuran	24.3	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	4.4	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	322 <sup>a</sup>	10	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	19.1	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	121%	108%	70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123439	<b>Date Sampled:</b>	06/05/09
<b>Lab Sample ID:</b>	M83394-18	<b>Date Received:</b>	06/05/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	106%	102%	70-130%
460-00-4	4-Bromofluorobenzene	102%	102%	70-130%

(a) Result is from Run# 2

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1123439**Lab Sample ID:** M83394-18**Date Sampled:** 06/05/09**Matrix:** AQ - Ground Water**Date Received:** 06/05/09**Method:** CT-ETPH 7/06 SW846 3510C**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC28002.D	1	06/18/09	WZ	06/09/09	OP18694	GBC1516
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
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	CT-DRO (C9-C36)	0.286	0.080	mg/l	
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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
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3386-33-2	1-Chlorooctadecane	53%		50-149%
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ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123439		
<b>Lab Sample ID:</b>	M83394-18	<b>Date Sampled:</b>	06/05/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/05/09
<b>Method:</b>	SW846 8082 SW846 3510C	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB26270.D	1	06/18/09	CZ	06/12/09	OP18727	GBB1076
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.26	ug/l	
11104-28-2	Aroclor 1221	ND	0.26	ug/l	
11141-16-5	Aroclor 1232	ND	0.26	ug/l	
53469-21-9	Aroclor 1242	ND	0.26	ug/l	
12672-29-6	Aroclor 1248	ND	0.26	ug/l	
11097-69-1	Aroclor 1254	ND	0.26	ug/l	
11096-82-5	Aroclor 1260	ND	0.26	ug/l	
37324-23-5	Aroclor 1262	ND	0.26	ug/l	
11100-14-4	Aroclor 1268	ND	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	129%		30-150%
877-09-8	Tetrachloro-m-xylene	123%		30-150%
2051-24-3	Decachlorobiphenyl	123%		30-150%
2051-24-3	Decachlorobiphenyl	113%		30-150%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

Client Sample ID: 1123439UF

Lab Sample ID: M83394-19

Matrix: AQ - Ground Water

Date Sampled: 06/05/09

Date Received: 06/05/09

Percent Solids: n/a

Project: UTC: 2009 Quarterly GW-Willow Pond

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	10.5	4.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Barium	300	200	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Cadmium	< 4.0	4.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Chromium	< 10	10	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Copper	< 25	25	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Lead	< 5.0	5.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Mercury	< 0.20	0.20	ug/l	1	06/09/09	06/10/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>3</sup>
Nickel	46.8	40	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Selenium	< 10	10	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Silver	< 5.0	5.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Zinc	< 20	20	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>

(1) Instrument QC Batch: MA10560

(2) Instrument QC Batch: MA10567

(3) Prep QC Batch: MP13617

(4) Prep QC Batch: MP13622

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1123440	<b>Date Sampled:</b>	06/05/09
<b>Lab Sample ID:</b>	M83394-20	<b>Date Received:</b>	06/05/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P37644.D	1	06/12/09	AMY	n/a	n/a	MSP1247
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	6.4	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 1123440

Lab Sample ID: M83394-20

Date Sampled: 06/05/09

Matrix: AQ - Ground Water

Date Received: 06/05/09

Method: SW846 8260B

Percent Solids: n/a

Project: UTC: 2009 Quarterly GW-Willow Pond

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	130%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1123440	<b>Date Sampled:</b>	06/05/09
<b>Lab Sample ID:</b>	M83394-20	<b>Date Received:</b>	06/05/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	105%		70-130%
460-00-4	4-Bromofluorobenzene	103%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1123440**Lab Sample ID:** M83394-20**Date Sampled:** 06/05/09**Matrix:** AQ - Ground Water**Date Received:** 06/05/09**Method:** CT-ETPH 7/06 SW846 3510C**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC28003.D	1	06/18/09	WZ	06/09/09	OP18694	GBC1516
Run #2							

	Initial Volume	Final Volume
Run #1	800 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
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	CT-DRO (C9-C36)	ND	0.10	mg/l	
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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
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3386-33-2	1-Chlorooctadecane	55%		50-149%
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ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1123440**Lab Sample ID:** M83394-20**Date Sampled:** 06/05/09**Matrix:** AQ - Ground Water**Date Received:** 06/05/09**Method:** SW846 8082 SW846 3510C**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB26271.D	1	06/18/09	CZ	06/12/09	OP18727	GBB1076
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	110%		30-150%
877-09-8	Tetrachloro-m-xylene	105%		30-150%
2051-24-3	Decachlorobiphenyl	113%		30-150%
2051-24-3	Decachlorobiphenyl	107%		30-150%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1123440UF**Lab Sample ID:** M83394-21**Matrix:** AQ - Ground Water**Date Sampled:** 06/05/09**Date Received:** 06/05/09**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Barium	< 200	200	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Cadmium	< 4.0	4.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Chromium	< 10	10	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Copper	< 25	25	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Lead	< 5.0	5.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Mercury	< 0.20	0.20	ug/l	1	06/09/09	06/10/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>3</sup>
Nickel	< 40	40	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Selenium	< 10	10	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Silver	< 5.0	5.0	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Zinc	< 20	20	ug/l	1	06/10/09	06/11/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>

(1) Instrument QC Batch: MA10560

(2) Instrument QC Batch: MA10567

(3) Prep QC Batch: MP13617

(4) Prep QC Batch: MP13622

RL = Reporting Limit



IT'S ALL IN THE CHEMISTRY

## Misc. Forms

### Custody Documents and Other Forms

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Includes the following where applicable:

- Certification Exceptions
- Certification Exceptions (CT)
- Chain of Custody
- RCP Form
- Sample Tracking Chronicle



Parameter Certification Exceptions

Job Number: M83394  
Account: LEA Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

The following parameters included in this report are exceptions to NELAC certification.  
The certification status of each is indicated below.

Parameter	CAS#	Method	Mat	Certification Status
Aroclor 1262	37324-23-5	SW846 8082	AQ	Certified by SOP MGC204/GC-ECD
Aroclor 1268	11100-14-4	SW846 8082	AQ	Certified by SOP MGC204/GC-ECD

4.1  
4

# CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE  
MARLBOROUGH, MA 01752  
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #: M83394

ACCUTEST QUOTE #: KB2/2009-453

CLIENT INFORMATION			FACILITY INFORMATION			ANALYTICAL INFORMATION										MATRIX CODES	
<b>NAME</b> <u>LEA</u> <b>ADDRESS</b> <u>100 Northwest Dr</u> <b>CITY, STATE ZIP</b> <u>Plainville CT 06062</u> <b>SEND REPORT TO:</b> <u>Robin McKinney</u> <b>PHONE #</b> <u>(860) 747-6181</u>			<b>PROJECT NAME</b> <u>Willow Pond GW monitoring</u> <b>LOCATION</b> <u>4th East Hartford</u> <b>PROJECT NO.</b> <u>88UT 907</u> <b>FAX #</b> _____			<b>VOCs</b> _____ <b>CT/ETPH</b> _____ <b>PCBs</b> _____ <u>Metals RCR 18 + Cnd. 24</u>										<b>DW - DRINKING WATER</b> <b>GW - GROUND WATER</b> <b>WW - WASTE WATER</b> <b>SO - SOIL</b> <b>SL - SLUDGE</b> <b>OI - OIL</b> <b>LIQ - OTHER LIQUID</b> <b>SOL - OTHER SOLID</b>	
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION			MATRIX	# OF BOTTLES	PRESERVATION						LAB USE ONLY				
		DATE	TIME	SAMPLED BY:			HC	HH03	HH04	HH05	HH06						
-1	1123427	6/5/09	10:45	NE	GW	6	2										
-2	1123427 of		10:45	NE		1											
-3	1123436		12:15	NE		6	2										
-4	1123436 of		12:15	NE		1											
-5	1123437		14:20	NE		6	2										
-6	1123437 of		14:20	NE		1											
-7	1123434		11:05	SK		6	2										
-8	1123434 of		11:05	SK		1											
-9	1123435		13:10	SK		6	2										
-10	1123435 of		13:10	SK		1											
-11	1123443		8:30	NE		1	1										
<b>DATA TURNAROUND INFORMATION</b> <input checked="" type="checkbox"/> 14 DAYS STANDARD <input type="checkbox"/> 7 DAYS RUSH <input type="checkbox"/> 48 HOUR EMERGENCY <input type="checkbox"/> OTHER _____ 14 DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED			<b>DATA DELIVERABLE INFORMATION</b> <input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> COMMERCIAL "B" <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> STATE FORMS <input type="checkbox"/> OTHER (SPECIFY) _____			<b>COMMENTS/REMARKS</b> <u>CT RCP List for VOC, PCB</u> <u>Provide CT RCP Report</u> <u>Loc. 19B, 252</u> <u>6D</u>											
<b>SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY</b>																	
RELINQUISHED BY SAMPLER:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:							
1. <u>Walter Enmons</u>		6/5/09 15:30		1. <u>B. Clark</u>		2. _____				2. _____							
RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:							
3. <u>B.C.</u>		6-5-09 17:40		3. <u>B.C.</u>		4. _____				4. _____							
RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		SEAL #		PRESERVE WHERE APPLICABLE		ON ICE		TEMPERATURE					
5. _____				5. _____						<input type="checkbox"/>		<u>2.5 C</u>					

M83394: Chain of Custody

Page 1 of 2



# Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Laboratory Name: Accutest New England Client: Loureiro Eng. Associates

Project Location: UTC: 2009 Quarterly GW-Willow Pond Project Number: 88UT907

Sampling Date(s): 6/5/2009

Laboratory Sample ID(s): M83394-1, M83394-2, M83394-3, M83394-4, M83394-5, M83394-6, M83394-7, M83394-8, M83394-9, M83394-10, M83394-11, M83394-12, M83394-13, M83394-14, M83394-15, M83394-16, M83394-17, M83394-18, M83394-19, M83394-20, M83394-21

Methods: CT-ETPH 7/06, SW846 6010B, 7470A, 8082, 8260B

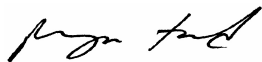
1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CTDEP method-specific Reasonable Confidence Protocol documents)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1A	Where all the method specified preservation and holding time requirements met?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1B	VPH and EPH mehods only: Was the VPH or EPH method conducted without significant modifications (See section 11.3 of respective methods)	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
3	Were samples received at an appropriate temperature (<6° C)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
4	Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
5	a) Were reporting limits specified or referenced on the chain-of-custody?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
	b) Were these reporting limits met?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
7	Are project-specific matrix spikes and laboratory duplicates included in this data set?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Note: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or #1B is "No", the data package does not meet the requirements for "Reasonable Confidence".

I, the undersigned, attest under pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized

Signature:



Position: Lab Director

Printed Name: Reza Tand

Accutest New England

Date: 6/19/2009

## Internal Sample Tracking Chronicle

Loureiro Eng. Associates

Job No: M83394

UTC: 2009 Quarterly GW-Willow Pond  
Project No: 88UT907

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M83394-1 1123427	Collected: 05-JUN-09 10:45	By: NE	Received: 05-JUN-09 By: SAP			
M83394-1	SW846 8260B	12-JUN-09 11:42	AMY			V8260RCP
M83394-1	SW846 8082	18-JUN-09 14:16	CZ	12-JUN-09	FG	P8082RCP
M83394-1	CT-ETPH 7/06	18-JUN-09 16:43	WZ	09-JUN-09	RJ	BCTTPH
M83394-2 1123427UF	Collected: 05-JUN-09 10:45	By: NE	Received: 05-JUN-09 By: SAP			
M83394-2	SW846 7470A	10-JUN-09 11:21	MA	09-JUN-09	MA	HG
M83394-2	SW846 6010B	11-JUN-09 11:31	PY	10-JUN-09	PY	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M83394-3 1123436	Collected: 05-JUN-09 12:15	By: NE	Received: 05-JUN-09 By: SAP			
M83394-3	SW846 8260B	12-JUN-09 12:10	AMY			V8260RCP
M83394-3	SW846 8082	18-JUN-09 14:55	CZ	12-JUN-09	FG	P8082RCP
M83394-3	CT-ETPH 7/06	18-JUN-09 17:22	WZ	09-JUN-09	RJ	BCTTPH
M83394-4 1123436UF	Collected: 05-JUN-09 12:15	By: NE	Received: 05-JUN-09 By: SAP			
M83394-4	SW846 7470A	10-JUN-09 11:23	MA	09-JUN-09	MA	HG
M83394-4	SW846 6010B	11-JUN-09 11:48	PY	10-JUN-09	PY	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M83394-5 1123437	Collected: 05-JUN-09 14:20	By: NE	Received: 05-JUN-09 By: SAP			
M83394-5	SW846 8260B	12-JUN-09 20:06	AMY			V8260RCP
M83394-5	SW846 8260B	17-JUN-09 16:16	AMY			V8260RCP
M83394-5	SW846 8082	18-JUN-09 15:34	CZ	12-JUN-09	FG	P8082RCP
M83394-5	CT-ETPH 7/06	18-JUN-09 18:02	WZ	09-JUN-09	RJ	BCTTPH
M83394-6 1123437UF	Collected: 05-JUN-09 14:20	By: NE	Received: 05-JUN-09 By: SAP			
M83394-6	SW846 7470A	10-JUN-09 11:25	MA	09-JUN-09	MA	HG

## Internal Sample Tracking Chronicle

Loureiro Eng. Associates

Job No: M83394

UTC: 2009 Quarterly GW-Willow Pond  
Project No: 88UT907

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M83394-6	SW846 6010B	11-JUN-09 11:54	PY	10-JUN-09	PY	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M83394-7 1123434	Collected: 05-JUN-09 11:05 By: SK		Received: 05-JUN-09 By: SAP			
M83394-7	SW846 8260B	12-JUN-09 12:38	AMY			V8260RCP
M83394-7	SW846 8082	18-JUN-09 17:45	CZ	12-JUN-09	FG	P8082RCP
M83394-7	CT-ETPH 7/06	18-JUN-09 18:42	WZ	09-JUN-09	RJ	BCTTPH
M83394-8 1123434UF	Collected: 05-JUN-09 11:05 By: SK		Received: 05-JUN-09 By: SAP			
M83394-8	SW846 7470A	10-JUN-09 11:27	MA	09-JUN-09	MA	HG
M83394-8	SW846 6010B	11-JUN-09 11:59	PY	10-JUN-09	PY	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M83394-9 1123435	Collected: 05-JUN-09 13:10 By: SK		Received: 05-JUN-09 By: SAP			
M83394-9	SW846 8260B	12-JUN-09 13:06	AMY			V8260RCP
M83394-9	SW846 8082	18-JUN-09 18:24	CZ	12-JUN-09	FG	P8082RCP
M83394-9	CT-ETPH 7/06	18-JUN-09 19:22	WZ	09-JUN-09	RJ	BCTTPH
M83394-10 1123435UF	Collected: 05-JUN-09 13:10 By: SK		Received: 05-JUN-09 By: SAP			
M83394-10	SW846 7470A	10-JUN-09 11:30	MA	09-JUN-09	MA	HG
M83394-10	SW846 6010B	11-JUN-09 12:05	PY	10-JUN-09	PY	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M83394-11 1123443	Collected: 05-JUN-09 08:30 By: NE		Received: 05-JUN-09 By: SAP			
M83394-11	SW846 8260B	12-JUN-09 13:34	AMY			V8260RCP
M83394-12 1123444	Collected: 05-JUN-09 14:30 By: NE		Received: 05-JUN-09 By: SAP			
M83394-12	SW846 8260B	12-JUN-09 14:02	AMY			V8260RCP

## Internal Sample Tracking Chronicle

Loureiro Eng. Associates

Job No: M83394

UTC: 2009 Quarterly GW-Willow Pond  
Project No: 88UT907

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M83394-12	SW846 8082	18-JUN-09 19:02	CZ	12-JUN-09	FG	P8082RCP
M83394-12	CT-ETPH 7/06	18-JUN-09 20:41	WZ	09-JUN-09	RJ	BCTTPH
M83394-13 Collected: 05-JUN-09 14:30 By: NE Received: 05-JUN-09 By: SAP 1123444UF						
M83394-13	SW846 7470A	10-JUN-09 11:32	MA	09-JUN-09	MA	HG
M83394-13	SW846 6010B	11-JUN-09 12:11	PY	10-JUN-09	PY	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M83394-14 Collected: 05-JUN-09 14:40 By: RD Received: 05-JUN-09 By: SAP 1123441						
M83394-14	SW846 8260B	12-JUN-09 14:30	AMY			V8260RCP
M83394-14	SW846 8082	18-JUN-09 19:41	CZ	12-JUN-09	FG	P8082RCP
M83394-14	CT-ETPH 7/06	18-JUN-09 21:21	WZ	09-JUN-09	RJ	BCTTPH
M83394-15 Collected: 05-JUN-09 14:40 By: RD Received: 05-JUN-09 By: SAP 1123441UF						
M83394-15	SW846 7470A	10-JUN-09 11:39	MA	09-JUN-09	MA	HG
M83394-15	SW846 6010B	11-JUN-09 12:16	PY	10-JUN-09	PY	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M83394-16 Collected: 05-JUN-09 10:25 By: RD Received: 05-JUN-09 By: SAP 1123438						
M83394-16	SW846 8260B	12-JUN-09 20:34	AMY			V8260RCP
M83394-16	SW846 8260B	17-JUN-09 16:44	AMY			V8260RCP
M83394-16	SW846 8082	18-JUN-09 20:20	CZ	12-JUN-09	FG	P8082RCP
M83394-16	CT-ETPH 7/06	18-JUN-09 22:00	WZ	09-JUN-09	RJ	BCTTPH
M83394-17 Collected: 05-JUN-09 10:25 By: RD Received: 05-JUN-09 By: SAP 1123438UF						
M83394-17	SW846 7470A	10-JUN-09 11:41	MA	09-JUN-09	MA	HG
M83394-17	SW846 6010B	11-JUN-09 12:22	PY	10-JUN-09	PY	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN

## Internal Sample Tracking Chronicle

Loureiro Eng. Associates

Job No: M83394

UTC: 2009 Quarterly GW-Willow Pond  
Project No: 88UT907

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M83394-18 Collected: 05-JUN-09 10:25 By: RD Received: 05-JUN-09 By: SAP 1123439						
M83394-18	SW846 8260B	12-JUN-09 21:03	AMY			V8260RCP
M83394-18	SW846 8260B	17-JUN-09 17:13	AMY			V8260RCP
M83394-18	SW846 8082	18-JUN-09 20:59	CZ	12-JUN-09	FG	P8082RCP
M83394-18	CT-ETPH 7/06	18-JUN-09 22:40	WZ	09-JUN-09	RJ	BCTTPH
M83394-19 Collected: 05-JUN-09 10:25 By: RD Received: 05-JUN-09 By: SAP 1123439UF						
M83394-19	SW846 7470A	10-JUN-09 11:43	MA	09-JUN-09	MA	HG
M83394-19	SW846 6010B	11-JUN-09 12:28	PY	10-JUN-09	PY	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M83394-20 Collected: 05-JUN-09 13:00 By: RD Received: 05-JUN-09 By: SAP 1123440						
M83394-20	SW846 8260B	12-JUN-09 14:58	AMY			V8260RCP
M83394-20	SW846 8082	18-JUN-09 21:38	CZ	12-JUN-09	FG	P8082RCP
M83394-20	CT-ETPH 7/06	18-JUN-09 23:19	WZ	09-JUN-09	RJ	BCTTPH
M83394-21 Collected: 05-JUN-09 13:00 By: RD Received: 05-JUN-09 By: SAP 1123440UF						
M83394-21	SW846 7470A	10-JUN-09 11:45	MA	09-JUN-09	MA	HG
M83394-21	SW846 6010B	11-JUN-09 12:33	PY	10-JUN-09	PY	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN





## GC/MS Volatiles

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

## Method Blank Summary

Page 1 of 3

**Job Number:** M83394

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1247-MB	P37636.D	1	06/12/09	AMY	n/a	n/a	MSP1247

The QC reported here applies to the following samples:

Method: SW846 8260B

M83394-1, M83394-3, M83394-5, M83394-7, M83394-9, M83394-11, M83394-12, M83394-14, M83394-16, M83394-18, M83394-20

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	

## Method Blank Summary

Page 2 of 3

**Job Number:** M83394

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1247-MB	P37636.D	1	06/12/09	AMY	n/a	n/a	MSP1247

**The QC reported here applies to the following samples:**

**Method:** SW846 8260B

M83394-1, M83394-3, M83394-5, M83394-7, M83394-9, M83394-11, M83394-12, M83394-14, M83394-16, M83394-18, M83394-20

CAS No.	Compound	Result	RL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

## Method Blank Summary

Page 3 of 3

**Job Number:** M83394

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1247-MB	P37636.D	1	06/12/09	AMY	n/a	n/a	MSP1247

The QC reported here applies to the following samples:

Method: SW846 8260B

M83394-1, M83394-3, M83394-5, M83394-7, M83394-9, M83394-11, M83394-12, M83394-14, M83394-16, M83394-18, M83394-20

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	121% 70-130%
2037-26-5	Toluene-D8	102% 70-130%
460-00-4	4-Bromofluorobenzene	104% 70-130%

## Method Blank Summary

Page 1 of 1

**Job Number:** M83394

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1249-MB	P37705.D	1	06/17/09	AMY	n/a	n/a	MSP1249

The QC reported here applies to the following samples:

Method: SW846 8260B

M83394-5, M83394-16, M83394-18

CAS No.	Compound	Result	RL	Units	Q
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	103% 70-130%
2037-26-5	Toluene-D8	100% 70-130%
460-00-4	4-Bromofluorobenzene	109% 70-130%

# Blank Spike/Blank Spike Duplicate Summary

Page 1 of 3

Job Number: M83394

Account: LEA Loureiro Eng. Associates

Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1247-BS	P37633.D	1	06/12/09	AMY	n/a	n/a	MSP1247
MSP1247-BSD	P37634.D	1	06/12/09	AMY	n/a	n/a	MSP1247

The QC reported here applies to the following samples:

Method: SW846 8260B

M83394-1, M83394-3, M83394-5, M83394-7, M83394-9, M83394-11, M83394-12, M83394-14, M83394-16, M83394-18, M83394-20

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	70.1	140* a	68.9	138* a	2	70-130/25
107-13-1	Acrylonitrile	250	316	126	320	128	1	70-130/25
71-43-2	Benzene	50	47.6	95	46.0	92	3	70-130/25
108-86-1	Bromobenzene	50	47.4	95	44.6	89	6	70-130/25
75-27-4	Bromodichloromethane	50	55.4	111	53.8	108	3	70-130/25
75-25-2	Bromoform	50	48.4	97	45.8	92	6	70-130/25
74-83-9	Bromomethane	50	51.8	104	51.8	104	0	70-130/25
78-93-3	2-Butanone (MEK)	50	58.3	117	56.3	113	3	70-130/25
104-51-8	n-Butylbenzene	50	49.5	99	41.5	83	18	70-130/25
135-98-8	sec-Butylbenzene	50	53.2	106	46.5	93	13	70-130/25
98-06-6	tert-Butylbenzene	50	52.6	105	46.7	93	12	70-130/25
75-15-0	Carbon disulfide	50	53.7	107	48.3	97	11	70-130/25
56-23-5	Carbon tetrachloride	50	51.3	103	46.8	94	9	70-130/25
108-90-7	Chlorobenzene	50	45.1	90	44.7	89	1	70-130/25
75-00-3	Chloroethane	50	56.6	113	55.1	110	3	70-130/25
67-66-3	Chloroform	50	53.2	106	53.1	106	0	70-130/25
74-87-3	Chloromethane	50	60.9	122	57.9	116	5	70-130/25
95-49-8	o-Chlorotoluene	50	51.3	103	48.3	97	6	70-130/25
106-43-4	p-Chlorotoluene	50	51.7	103	48.7	97	6	70-130/25
96-12-8	1,2-Dibromo-3-chloropropane	50	53.2	106	49.2	98	8	70-130/25
124-48-1	Dibromochloromethane	50	52.7	105	52.1	104	1	70-130/25
106-93-4	1,2-Dibromoethane	50	49.3	99	47.6	95	4	70-130/25
95-50-1	1,2-Dichlorobenzene	50	49.3	99	46.7	93	5	70-130/25
541-73-1	1,3-Dichlorobenzene	50	49.9	100	47.1	94	6	70-130/25
106-46-7	1,4-Dichlorobenzene	50	49.5	99	47.2	94	5	70-130/25
75-71-8	Dichlorodifluoromethane	50	47.0	94	45.2	90	4	70-130/25
75-34-3	1,1-Dichloroethane	50	51.5	103	52.3	105	2	70-130/25
107-06-2	1,2-Dichloroethane	50	51.2	102	50.3	101	2	70-130/25
75-35-4	1,1-Dichloroethene	50	51.0	102	47.1	94	8	70-130/25
156-59-2	cis-1,2-Dichloroethene	50	52.7	105	52.7	105	0	70-130/25
156-60-5	trans-1,2-Dichloroethene	50	51.2	102	50.4	101	2	70-130/25
78-87-5	1,2-Dichloropropane	50	51.3	103	49.4	99	4	70-130/25
142-28-9	1,3-Dichloropropane	50	48.7	97	48.1	96	1	70-130/25
594-20-7	2,2-Dichloropropane	50	23.5	47* a	46.2	92	65* a	70-130/25
563-58-6	1,1-Dichloropropene	50	51.7	103	47.2	94	9	70-130/25
10061-01-5	cis-1,3-Dichloropropene	50	43.5	87	44.3	89	2	70-130/25

## Blank Spike/Blank Spike Duplicate Summary

Page 2 of 3

Job Number: M83394

Account: LEA Loureiro Eng. Associates

Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1247-BS	P37633.D	1	06/12/09	AMY	n/a	n/a	MSP1247
MSP1247-BSD	P37634.D	1	06/12/09	AMY	n/a	n/a	MSP1247

The QC reported here applies to the following samples:

Method: SW846 8260B

M83394-1, M83394-3, M83394-5, M83394-7, M83394-9, M83394-11, M83394-12, M83394-14, M83394-16, M83394-18, M83394-20

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	50	43.0	86	43.7	87	2	70-130/25
100-41-4	Ethylbenzene	50	46.8	94	45.1	90	4	70-130/25
76-13-1	Freon 113	50	51.6	103	49.4	99	4	70-130/25
87-68-3	Hexachlorobutadiene	50	54.8	110	43.9	88	22	70-130/25
591-78-6	2-Hexanone	50	53.5	107	49.3	99	8	70-130/25
98-82-8	Isopropylbenzene	50	51.4	103	47.7	95	7	70-130/25
99-87-6	p-Isopropyltoluene	50	53.4	107	46.7	93	13	70-130/25
1634-04-4	Methyl Tert Butyl Ether	50	48.0	96	54.9	110	13	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	57.3	115	53.1	106	8	70-130/25
74-95-3	Methylene bromide	50	54.5	109	53.4	107	2	70-130/25
75-09-2	Methylene chloride	50	50.1	100	51.5	103	3	70-130/25
91-20-3	Naphthalene	50	45.4	91	39.9	80	13	70-130/25
103-65-1	n-Propylbenzene	50	53.1	106	47.8	96	11	70-130/25
100-42-5	Styrene	50	43.6	87	43.0	86	1	70-130/25
630-20-6	1,1,1,2-Tetrachloroethane	50	48.4	97	46.3	93	4	70-130/25
79-34-5	1,1,2,2-Tetrachloroethane	50	50.9	102	48.6	97	5	70-130/25
127-18-4	Tetrachloroethene	50	46.3	93	43.9	88	5	70-130/25
109-99-9	Tetrahydrofuran	50	65.3	131* a	66.2	132* a	1	70-130/25
108-88-3	Toluene	50	50.5	101	48.4	97	4	70-130/25
110-57-6	Trans-1,4-Dichloro-2-Butene	50	49.6	99	48.8	98	2	70-130/25
87-61-6	1,2,3-Trichlorobenzene	50	46.7	93	41.1	82	13	70-130/25
120-82-1	1,2,4-Trichlorobenzene	50	46.4	93	40.3	81	14	70-130/25
71-55-6	1,1,1-Trichloroethane	50	50.4	101	52.0	104	3	70-130/25
79-00-5	1,1,2-Trichloroethane	50	51.9	104	50.9	102	2	70-130/25
79-01-6	Trichloroethene	50	52.7	105	48.5	97	8	70-130/25
75-69-4	Trichlorofluoromethane	50	48.0	96	46.2	92	4	70-130/25
96-18-4	1,2,3-Trichloropropane	50	50.4	101	47.1	94	7	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	50.2	100	45.8	92	9	70-130/25
108-67-8	1,3,5-Trimethylbenzene	50	51.3	103	46.9	94	9	70-130/25
75-01-4	Vinyl chloride	50	58.5	117	56.3	113	4	70-130/25
	m,p-Xylene	100	93.6	94	90.6	91	3	70-130/25
95-47-6	o-Xylene	50	46.9	94	45.3	91	3	70-130/25

## Blank Spike/Blank Spike Duplicate Summary

Page 3 of 3

**Job Number:** M83394

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1247-BS	P37633.D	1	06/12/09	AMY	n/a	n/a	MSP1247
MSP1247-BSD	P37634.D	1	06/12/09	AMY	n/a	n/a	MSP1247

The QC reported here applies to the following samples:

Method: SW846 8260B

M83394-1, M83394-3, M83394-5, M83394-7, M83394-9, M83394-11, M83394-12, M83394-14, M83394-16, M83394-18, M83394-20

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	103%	107%	70-130%
2037-26-5	Toluene-D8	103%	101%	70-130%
460-00-4	4-Bromofluorobenzene	104%	103%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.



## Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

**Job Number:** M83394

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1249-BS	P37702.D	1	06/17/09	AMY	n/a	n/a	MSP1249
MSP1249-BSD	P37703.D	1	06/17/09	AMY	n/a	n/a	MSP1249

The QC reported here applies to the following samples:

Method: SW846 8260B

M83394-5, M83394-16, M83394-18

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
127-18-4	Tetrachloroethene	50	49.6	99	47.0	94	5	70-130/25
79-01-6	Trichloroethene	50	49.5	99	48.7	97	2	70-130/25

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	105%	103%	70-130%
2037-26-5	Toluene-D8	101%	100%	70-130%
460-00-4	4-Bromofluorobenzene	98%	97%	70-130%

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 3

**Job Number:** M83394**Account:** LEA Loureiro Eng. Associates**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M83394-14MS	P37647.D	5	06/12/09	AMY	n/a	n/a	MSP1247
M83394-14MSD	P37648.D	5	06/12/09	AMY	n/a	n/a	MSP1247
M83394-14	P37643.D	1	06/12/09	AMY	n/a	n/a	MSP1247

**The QC reported here applies to the following samples:****Method:** SW846 8260B

M83394-1, M83394-3, M83394-5, M83394-7, M83394-9, M83394-11, M83394-12, M83394-14, M83394-16, M83394-18, M83394-20

CAS No.	Compound	M83394-14 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND	250	276	110	287	115	4	70-130/30
107-13-1	Acrylonitrile	ND	1250	1790	143* a	1760	141* a	2	70-130/30
71-43-2	Benzene	ND	250	250	100	234	94	7	70-130/30
108-86-1	Bromobenzene	ND	250	218	87	216	86	1	70-130/30
75-27-4	Bromodichloromethane	ND	250	278	111	272	109	2	70-130/30
75-25-2	Bromoform	ND	250	234	94	232	93	1	70-130/30
74-83-9	Bromomethane	ND	250	237	95	251	100	6	70-130/30
78-93-3	2-Butanone (MEK)	ND	250	287	115	277	111	4	70-130/30
104-51-8	n-Butylbenzene	ND	250	201	80	199	80	1	70-130/30
135-98-8	sec-Butylbenzene	ND	250	230	92	222	89	4	70-130/30
98-06-6	tert-Butylbenzene	ND	250	228	91	219	88	4	70-130/30
75-15-0	Carbon disulfide	ND	250	268	107	261	104	3	70-130/30
56-23-5	Carbon tetrachloride	ND	250	262	105	244	98	7	70-130/30
108-90-7	Chlorobenzene	ND	250	221	88	221	88	0	70-130/30
75-00-3	Chloroethane	ND	250	321	128	314	126	2	70-130/30
67-66-3	Chloroform	ND	250	300	120	287	115	4	70-130/30
74-87-3	Chloromethane	ND	250	355	142* a	376	150* a	6	70-130/30
95-49-8	o-Chlorotoluene	ND	250	238	95	232	93	3	70-130/30
106-43-4	p-Chlorotoluene	ND	250	240	96	235	94	2	70-130/30
96-12-8	1,2-Dibromo-3-chloropropane	ND	250	239	96	253	101	6	70-130/30
124-48-1	Dibromochloromethane	ND	250	258	103	262	105	2	70-130/30
106-93-4	1,2-Dibromoethane	ND	250	241	96	244	98	1	70-130/30
95-50-1	1,2-Dichlorobenzene	ND	250	224	90	226	90	1	70-130/30
541-73-1	1,3-Dichlorobenzene	ND	250	230	92	226	90	2	70-130/30
106-46-7	1,4-Dichlorobenzene	ND	250	231	92	227	91	2	70-130/30
75-71-8	Dichlorodifluoromethane	ND	250	281	112	259	104	8	70-130/30
75-34-3	1,1-Dichloroethane	ND	250	292	117	278	111	5	70-130/30
107-06-2	1,2-Dichloroethane	ND	250	277	111	261	104	6	70-130/30
75-35-4	1,1-Dichloroethene	ND	250	264	106	255	102	3	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND	250	291	116	284	114	2	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND	250	264	106	257	103	3	70-130/30
78-87-5	1,2-Dichloropropane	ND	250	269	108	250	100	7	70-130/30
142-28-9	1,3-Dichloropropane	ND	250	247	99	250	100	1	70-130/30
594-20-7	2,2-Dichloropropane	ND	250	260	104	256	102	2	70-130/30
563-58-6	1,1-Dichloropropene	ND	250	249	100	237	95	5	70-130/30
10061-01-5	cis-1,3-Dichloropropene	ND	250	227	91	223	89	2	70-130/30

# Matrix Spike/Matrix Spike Duplicate Summary

Page 2 of 3

**Job Number:** M83394

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M83394-14MS	P37647.D	5	06/12/09	AMY	n/a	n/a	MSP1247
M83394-14MSD	P37648.D	5	06/12/09	AMY	n/a	n/a	MSP1247
M83394-14	P37643.D	1	06/12/09	AMY	n/a	n/a	MSP1247

The QC reported here applies to the following samples:

Method: SW846 8260B

M83394-1, M83394-3, M83394-5, M83394-7, M83394-9, M83394-11, M83394-12, M83394-14, M83394-16, M83394-18, M83394-20

CAS No.	Compound	M83394-14 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	ND	250	219	88	217	87	1	70-130/30
100-41-4	Ethylbenzene	ND	250	230	92	227	91	1	70-130/30
76-13-1	Freon 113	ND	250	295	118	270	108	9	70-130/30
87-68-3	Hexachlorobutadiene	ND	250	208	83	204	82	2	70-130/30
591-78-6	2-Hexanone	ND	250	217	87	243	97	11	70-130/30
98-82-8	Isopropylbenzene	ND	250	232	93	223	89	4	70-130/30
99-87-6	p-Isopropyltoluene	ND	250	233	93	229	92	2	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND	250	294	118	295	118	0	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	250	278	111	289	116	4	70-130/30
74-95-3	Methylene bromide	ND	250	281	112	274	110	3	70-130/30
75-09-2	Methylene chloride	ND	250	294	118	276	110	6	70-130/30
91-20-3	Naphthalene	ND	250	165	66* a	181	72	9	70-130/30
103-65-1	n-Propylbenzene	ND	250	234	94	229	92	2	70-130/30
100-42-5	Styrene	ND	250	209	84	211	84	1	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND	250	238	95	237	95	0	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND	250	249	100	243	97	2	70-130/30
127-18-4	Tetrachloroethene	ND	250	226	90	221	88	2	70-130/30
109-99-9	Tetrahydrofuran	ND	250	367	147* b	363	145* b	1	70-130/30
108-88-3	Toluene	ND	250	250	100	239	96	4	70-130/30
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	250	247	99	256	102	4	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND	250	183	73	194	78	6	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND	250	182	73	189	76	4	70-130/30
71-55-6	1,1,1-Trichloroethane	ND	250	295	118	276	110	7	70-130/30
79-00-5	1,1,2-Trichloroethane	ND	250	273	109	257	103	6	70-130/30
79-01-6	Trichloroethene	ND	250	259	104	243	97	6	70-130/30
75-69-4	Trichlorofluoromethane	ND	250	273	109	252	101	8	70-130/30
96-18-4	1,2,3-Trichloropropane	ND	250	240	96	233	93	3	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND	250	229	92	223	89	3	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND	250	228	91	222	89	3	70-130/30
75-01-4	Vinyl chloride	ND	250	342	137* a	344	138* a	1	70-130/30
	m,p-Xylene	ND	500	461	92	450	90	2	70-130/30
95-47-6	o-Xylene	ND	250	236	94	231	92	2	70-130/30

## Matrix Spike/Matrix Spike Duplicate Summary

Page 3 of 3

**Job Number:** M83394

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M83394-14MS	P37647.D	5	06/12/09	AMY	n/a	n/a	MSP1247
M83394-14MSD	P37648.D	5	06/12/09	AMY	n/a	n/a	MSP1247
M83394-14	P37643.D	1	06/12/09	AMY	n/a	n/a	MSP1247

The QC reported here applies to the following samples:

Method: SW846 8260B

M83394-1, M83394-3, M83394-5, M83394-7, M83394-9, M83394-11, M83394-12, M83394-14, M83394-16, M83394-18, M83394-20

CAS No.	Surrogate Recoveries	MS	MSD	M83394-14	Limits
1868-53-7	Dibromofluoromethane	117%	117%	130%	70-130%
2037-26-5	Toluene-D8	101%	101%	106%	70-130%
460-00-4	4-Bromofluorobenzene	99%	101%	105%	70-130%

- (a) Outside control limits due to possible matrix interference. Refer to Blank Spike.  
(b) Outside control limits. Blank Spike meets program technical requirements.

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

**Job Number:** M83394

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M83437-16MS	P37722.D	5	06/17/09	AMY	n/a	n/a	MSP1249
M83437-16MSD	P37723.D	5	06/17/09	AMY	n/a	n/a	MSP1249
M83437-16	P37709.D	1	06/17/09	AMY	n/a	n/a	MSP1249

The QC reported here applies to the following samples:

Method: SW846 8260B

M83394-5, M83394-16, M83394-18

CAS No.	Compound	M83437-16 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
127-18-4	Tetrachloroethene	ND	250	258	103	231	92	11	70-130/30
79-01-6	Trichloroethene	ND	250	258	103	237	95	8	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	M83437-16	Limits
1868-53-7	Dibromofluoromethane	107%	108%	104%	70-130%
2037-26-5	Toluene-D8	102%	100%	100%	70-130%
460-00-4	4-Bromofluorobenzene	97%	98%	109%	70-130%

# Volatile Internal Standard Area Summary

Page 1 of 1

**Job Number:** M83394  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Check Std:** MSP1247-CC1243  
**Lab File ID:** P37632.D  
**Instrument ID:** GCMSP  
**Injection Date:** 06/12/09  
**Injection Time:** 09:21  
**Method:** SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	45944	8.89	89879	9.76	61851	13.01	56851	15.57	35426	6.48
Upper Limit <sup>a</sup>	91888	9.39	179758	10.26	123702	13.51	113702	16.07	70852	6.98
Lower Limit <sup>b</sup>	22972	8.39	44940	9.26	30926	12.51	28426	15.07	17713	5.98

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSP1247-BS	48212	8.89	91468	9.76	63869	13.01	54376	15.57	35579	6.49
MSP1247-BSD	46523	8.89	91814	9.76	62303	13.01	54288	15.57	33156	6.49
MSP1247-MB	36793	8.90	72203	9.76	49289	13.01	36087	15.58	33708	6.51
M83394-1	37134	8.90	69865	9.76	49522	13.01	34370	15.57	32165	6.51
M83394-3	36723	8.89	68924	9.76	47136	13.01	33729	15.57	33333	6.51
M83394-7	34623	8.90	67250	9.76	46306	13.01	32513	15.57	34333	6.52
M83394-9	33071	8.90	64211	9.76	44579	13.01	32574	15.58	31007	6.51
M83394-11	32187	8.90	63976	9.77	44478	13.01	29685	15.57	30060	6.51
M83394-12	31208	8.90	61521	9.77	43202	13.01	28854	15.58	27600	6.54
M83394-14	31021	8.89	60102	9.77	43222	13.01	29087	15.58	27367	6.51
M83394-20	30255	8.90	59641	9.76	42047	13.01	29846	15.58	29566	6.51
ZZZZZZ	26212	8.90	56092	9.77	34589	13.01	24599 <sup>c</sup>	15.57	26262	6.51
ZZZZZZ	30512	8.89	66142	9.76	46061	13.01	39587	15.57	30538	6.50
M83394-14MS	37912	8.89	77639	9.76	54595	13.01	49216	15.57	32618	6.49
M83394-14MSD	40571	8.89	83262	9.76	56369	13.01	51735	15.57	34341	6.49
ZZZZZZ	38076	8.89	71272	9.76	53295	13.01	38410	15.57	35185	6.47
ZZZZZZ	35337	8.89	68750	9.76	47242	13.01	34350	15.57	34700	6.51
ZZZZZZ	34530	8.90	66555	9.77	46664	13.01	32699	15.57	31353	6.50
ZZZZZZ	31933	8.90	65212	9.77	46568	13.01	32078	15.57	28490	6.49
ZZZZZZ	32562	8.90	63198	9.76	44372	13.01	30687	15.57	30311	6.50
ZZZZZZ	31339	8.90	60160	9.76	43507	13.01	29725	15.57	30303	6.50
M83394-5	33133	8.89	62872	9.76	46353	13.01	29847	15.57	28439	6.50
M83394-16	33325	8.89	60616	9.76	43736	13.01	28615	15.58	30145	6.51
M83394-18	33052	8.89	59163	9.76	43149	13.01	28818	15.58	29439	6.51

**IS 1** = Pentafluorobenzene  
**IS 2** = 1,4-Difluorobenzene  
**IS 3** = Chlorobenzene-D5  
**IS 4** = 1,4-Dichlorobenzene-d4  
**IS 5** = Tert Butyl Alcohol-D9

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

(c) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

# Volatile Internal Standard Area Summary

Page 1 of 1

**Job Number:** M83394  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Check Std:** MSP1249-CC1248  
**Lab File ID:** P37702.D  
**Instrument ID:** GCMSP  
**Injection Date:** 06/17/09  
**Injection Time:** 10:33  
**Method:** SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	50366	8.89	81963	9.76	42260	13.01	32957	15.57	21293	6.50
Upper Limit <sup>a</sup>	100732	9.39	163926	10.26	84520	13.51	65914	16.07	42586	7.00
Lower Limit <sup>b</sup>	25183	8.39	40982	9.26	21130	12.51	16479	15.07	10647	6.00

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSP1249-BS	50366	8.89	81963	9.76	42260	13.01	32957	15.57	21293	6.50
MSP1249-BSD	50855	8.89	81687	9.76	41540	13.01	32228	15.57	20336	6.50
MSP1249-MB	47673	8.89	76441	9.76	38150	13.01	26187	15.57	18689	6.51
ZZZZZZ	50608	8.89	82768	9.76	40012	13.02	27742	15.58	20043	6.53
ZZZZZZ	45126	8.89	73331	9.77	35905	13.01	25031	15.58	17595	6.53
ZZZZZZ	47949	8.89	75409	9.76	36639	13.01	25837	15.58	18500	6.52
M83437-16	47352	8.90	76630	9.76	37042	13.01	25369	15.58	17572	6.52
M83394-5	39437	8.90	66676	9.77	32883	13.01	22777	15.58	17562	6.52
M83394-16	43561	8.90	71559	9.76	36173	13.01	24649	15.58	21184	6.52
M83394-18	45879	8.90	74620	9.76	36397	13.01	25702	15.58	21901	6.52
ZZZZZZ	42948	8.90	71705	9.76	34690	13.01	23978	15.58	17989	6.53
ZZZZZZ	43689	8.90	71730	9.76	35459	13.01	23673	15.58	17916	6.53
ZZZZZZ	44027	8.90	73537	9.77	36889	13.01	24315	15.58	18682	6.53
ZZZZZZ	43760	8.90	71106	9.77	34838	13.01	23085	15.58	16619	6.52
ZZZZZZ	43669	8.89	72225	9.76	36083	13.01	24389	15.58	18174	6.53
ZZZZZZ	43661	8.89	70163	9.76	36916	13.01	28410	15.57	17854	6.52
ZZZZZZ	48413	8.89	77730	9.76	38355	13.01	29177	15.57	20194	6.52
ZZZZZZ	46332	8.90	75746	9.76	36968	13.01	24295	15.58	13928	6.53
ZZZZZZ	43569	8.90	69491	9.76	34264	13.01	23811	15.58	14944	6.52
M83437-16MS	47256	8.89	77525	9.76	39548	13.01	31709	15.57	15360	6.50
M83437-16MSD	47455	8.89	79026	9.76	40054	13.01	31669	15.57	17077	6.51

**IS 1** = Pentafluorobenzene  
**IS 2** = 1,4-Difluorobenzene  
**IS 3** = Chlorobenzene-D5  
**IS 4** = 1,4-Dichlorobenzene-d4  
**IS 5** = Tert Butyl Alcohol-D9

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

# Volatile Surrogate Recovery Summary

Page 1 of 1

**Job Number:** M83394

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Method:** SW846 8260B

**Matrix:** AQ

**Samples and QC shown here apply to the above method**

Lab Sample ID	Lab File ID	S1	S2	S3
M83394-1	P37637.D	119.0	105.0	105.0
M83394-3	P37638.D	119.0	102.0	106.0
M83394-5	P37710.D	108.0	99.0	107.0
M83394-5	P37655.D	123.0	104.0	107.0
M83394-7	P37639.D	121.0	103.0	102.0
M83394-9	P37640.D	125.0	104.0	106.0
M83394-11	P37641.D	123.0	103.0	105.0
M83394-12	P37642.D	127.0	104.0	107.0
M83394-14	P37643.D	130.0	106.0	105.0
M83394-16	P37711.D	110.0	102.0	109.0
M83394-16	P37656.D	118.0	106.0	106.0
M83394-18	P37712.D	108.0	102.0	102.0
M83394-18	P37657.D	121.0	106.0	102.0
M83394-20	P37644.D	130.0	105.0	103.0
M83394-14MS	P37647.D	117.0	101.0	99.0
M83394-14MSD	P37648.D	117.0	101.0	101.0
M83437-16MS	P37722.D	107.0	102.0	97.0
M83437-16MSD	P37723.D	108.0	100.0	98.0
MSP1247-BS	P37633.D	103.0	103.0	104.0
MSP1247-BSD	P37634.D	107.0	101.0	103.0
MSP1247-MB	P37636.D	121.0	102.0	104.0
MSP1249-BS	P37702.D	105.0	101.0	98.0
MSP1249-BSD	P37703.D	103.0	100.0	97.0
MSP1249-MB	P37705.D	103.0	100.0	109.0

## Surrogate Compounds

## Recovery Limits

**S1** = Dibromofluoromethane

70-130%

**S2** = Toluene-D8

70-130%

**S3** = 4-Bromofluorobenzene

70-130%





## GC Semi-volatiles

### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries

## Method Blank Summary

Page 1 of 1

**Job Number:** M83394

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP18694-MB	BC27988.D	1	06/18/09	WZ	06/09/09	OP18694	GBC1516

The QC reported here applies to the following samples:

Method: CT-ETPH 7/06

M83394-1, M83394-3, M83394-5, M83394-7, M83394-9, M83394-12, M83394-14, M83394-16, M83394-18, M83394-20

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	ND	0.080	mg/l	

CAS No.	Surrogate Recoveries	Limits
3386-33-2	1-Chlorooctadecane	65% 50-149%

## Method Blank Summary

Page 1 of 1

**Job Number:** M83394

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP18727-MB	BB26255.D	1	06/18/09	CZ	06/12/09	OP18727	GBB1076

The QC reported here applies to the following samples:

Method: SW846 8082

M83394-1, M83394-3, M83394-5, M83394-7, M83394-9, M83394-12, M83394-14, M83394-16, M83394-18, M83394-20

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	103%	30-150%
877-09-8	Tetrachloro-m-xylene	94%	30-150%
2051-24-3	Decachlorobiphenyl	64%	30-150%
2051-24-3	Decachlorobiphenyl	55%	30-150%

## Blank Spike Summary

Page 1 of 1

**Job Number:** M83394

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP18694-BS	BC27989.D	1	06/18/09	WZ	06/09/09	OP18694	GBC1516

The QC reported here applies to the following samples:

Method: CT-ETPH 7/06

M83394-1, M83394-3, M83394-5, M83394-7, M83394-9, M83394-12, M83394-14, M83394-16, M83394-18, M83394-20

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	CT-DRO (C9-C36)	0.7	0.609	87	60-120

CAS No.	Surrogate Recoveries	BSP	Limits
3386-33-2	1-Chlorooctadecane	69%	50-149%

## Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

**Job Number:** M83394

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP18727-BS	BB26256.D	1	06/18/09	CZ	06/12/09	OP18727	GBB1076
OP18727-BSD	BB26257.D	1	06/18/09	CZ	06/12/09	OP18727	GBB1076

The QC reported here applies to the following samples:

Method: SW846 8082

M83394-1, M83394-3, M83394-5, M83394-7, M83394-9, M83394-12, M83394-14, M83394-16, M83394-18, M83394-20

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	2	2.4	120	2.4	120	0	40-140/20
11104-28-2	Aroclor 1221		ND		ND		nc	40-140/20
11141-16-5	Aroclor 1232		ND		ND		nc	40-140/20
53469-21-9	Aroclor 1242		ND		ND		nc	40-140/20
12672-29-6	Aroclor 1248		ND		ND		nc	40-140/20
11097-69-1	Aroclor 1254		ND		ND		nc	40-140/20
11096-82-5	Aroclor 1260	2	2.4	120	2.4	120	0	40-140/20
37324-23-5	Aroclor 1262		ND		ND		nc	40-140/20
11100-14-4	Aroclor 1268		ND		ND		nc	40-140/20

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	128%	122%	30-150%
877-09-8	Tetrachloro-m-xylene	117%	113%	30-150%
2051-24-3	Decachlorobiphenyl	87%	83%	30-150%
2051-24-3	Decachlorobiphenyl	74%	71%	30-150%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M83394  
Account: LEA Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP18694-MS	BC27990.D	1	06/18/09	WZ	06/09/09	OP18694	GBC1516
OP18694-MSD	BC27991.D	1	06/18/09	WZ	06/09/09	OP18694	GBC1516
M83410-6	BC27992.D	1	06/18/09	WZ	06/09/09	OP18694	GBC1516

The QC reported here applies to the following samples: Method: CT-ETPH 7/06  
M83394-1, M83394-3, M83394-5, M83394-7, M83394-9, M83394-12, M83394-14, M83394-16, M83394-18, M83394-20

CAS No.	Compound	M83410-6 mg/l	Spike Q mg/l	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	CT-DRO (C9-C36)	ND	0.7	0.641	92	0.667	95	4	50-129/26

CAS No.	Surrogate Recoveries	MS	MSD	M83410-6	Limits
3386-33-2	1-Chlorooctadecane	57%	68%	59%	50-149%

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

**Job Number:** M83394

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP18727-MS	BB26258.D	1	06/18/09	CZ	06/12/09	OP18727	GBB1076
OP18727-MSD	BB26259.D	1	06/18/09	CZ	06/12/09	OP18727	GBB1076
M83410-16	BB26260.D	1	06/18/09	CZ	06/12/09	OP18727	GBB1076

The QC reported here applies to the following samples:

Method: SW846 8082

M83394-1, M83394-3, M83394-5, M83394-7, M83394-9, M83394-12, M83394-14, M83394-16, M83394-18, M83394-20

CAS No.	Compound	M83410-16 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	ND	2	2.4	120	2.3	115	4	40-140/50
11104-28-2	Aroclor 1221	ND		ND		ND		nc	40-140/50
11141-16-5	Aroclor 1232	ND		ND		ND		nc	40-140/50
53469-21-9	Aroclor 1242	ND		ND		ND		nc	40-140/50
12672-29-6	Aroclor 1248	ND		ND		ND		nc	40-140/50
11097-69-1	Aroclor 1254	ND		ND		ND		nc	40-140/50
11096-82-5	Aroclor 1260	ND	2	2.4	120	2.3	115	4	40-140/50
37324-23-5	Aroclor 1262	ND		ND		ND		nc	40-140/50
11100-14-4	Aroclor 1268	ND		ND		ND		nc	40-140/50

CAS No.	Surrogate Recoveries	MS	MSD	M83410-16	Limits
877-09-8	Tetrachloro-m-xylene	125%	119%	128%	30-150%
877-09-8	Tetrachloro-m-xylene	116%	109%	119%	30-150%
2051-24-3	Decachlorobiphenyl	80%	78%	85%	30-150%
2051-24-3	Decachlorobiphenyl	71%	69%	76%	30-150%

# Semivolatile Surrogate Recovery Summary

Page 1 of 1

**Job Number:** M83394

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Method:** CT-ETPH 7/06

**Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 <sup>a</sup>
M83394-1	BC27993.D	53.0
M83394-3	BC27994.D	72.0
M83394-5	BC27995.D	61.0
M83394-7	BC27996.D	67.0
M83394-9	BC27997.D	50.0
M83394-12	BC27999.D	50.0
M83394-14	BC28000.D	62.0
M83394-16	BC28001.D	60.0
M83394-18	BC28002.D	53.0
M83394-20	BC28003.D	55.0
OP18694-BS	BC27989.D	69.0
OP18694-MB	BC27988.D	65.0
OP18694-MS	BC27990.D	57.0
OP18694-MSD	BC27991.D	68.0

Surrogate Compounds	Recovery Limits
S1 = 1-Chlorooctadecane	50-149%

(a) Recovery from GC signal #1

6.5.1

6



# Semivolatile Surrogate Recovery Summary

Page 1 of 1

**Job Number:** M83394

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Method:** SW846 8082

**Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 <sup>a</sup>	S1 <sup>b</sup>	S2 <sup>a</sup>	S2 <sup>b</sup>
M83394-1	BB26261.D	117.0	108.0	92.0	84.0
M83394-3	BB26262.D	129.0	120.0	123.0	110.0
M83394-5	BB26263.D	126.0	119.0	124.0	113.0
M83394-7	BB26265.D	119.0	111.0	118.0	108.0
M83394-9	BB26266.D	131.0	124.0	130.0	120.0
M83394-12	BB26267.D	119.0	114.0	82.0	76.0
M83394-14	BB26268.D	120.0	114.0	124.0	115.0
M83394-16	BB26269.D	124.0	118.0	115.0	108.0
M83394-18	BB26270.D	129.0	123.0	123.0	113.0
M83394-20	BB26271.D	110.0	105.0	113.0	107.0
OP18727-BS	BB26256.D	128.0	117.0	87.0	74.0
OP18727-BSD	BB26257.D	122.0	113.0	83.0	71.0
OP18727-MB	BB26255.D	103.0	94.0	64.0	55.0
OP18727-MS	BB26258.D	125.0	116.0	80.0	71.0
OP18727-MSD	BB26259.D	119.0	109.0	78.0	69.0

## Surrogate Compounds

## Recovery Limits

S1 = Tetrachloro-m-xylene

30-150%

S2 = Decachlorobiphenyl

30-150%

(a) Recovery from GC signal #1

(b) Recovery from GC signal #2

6.5.2

6



## Metals Analysis

### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: M83394  
Account: LEA - Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP13617  
Matrix Type: AQUEOUS

Methods: SW846 7470A  
Units: ug/l

Prep Date: 06/09/09

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.20	.035	.048	-0.0030	<0.20

Associated samples MP13617: M83394-2, M83394-4, M83394-6, M83394-8, M83394-10, M83394-13, M83394-15, M83394-17, M83394-19, M83394-21

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: M83394  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP13617  
 Matrix Type: AQUEOUS

Methods: SW846 7470A  
 Units: ug/l

Prep Date: 06/09/09 06/09/09

Metal	M83316-6 Original MS		Spikelot HGRWS1 % Rec		QC Limits	M83316-6 Original DUP		RPD	QC Limits
Mercury	0.0	2.9	3	96.7	75-125	0.0	0.0	NC	0-20

Associated samples MP13617: M83394-2, M83394-4, M83394-6, M83394-8, M83394-10, M83394-13, M83394-15, M83394-17, M83394-19, M83394-21

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: M83394  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP13617  
 Matrix Type: AQUEOUS

Methods: SW846 7470A  
 Units: ug/l

Prep Date: 06/09/09 06/09/09

Metal	BSP Result	Spikelot HGRWS1	% Rec	QC Limits	BSD Result	Spikelot HGRWS1	% Rec	BSD RPD	QC Limit
Mercury	3.0	3	100.0	80-120	3.0	3	100.0	0.0	20

Associated samples MP13617: M83394-2, M83394-4, M83394-6, M83394-8, M83394-10, M83394-13, M83394-15, M83394-17, M83394-19, M83394-21

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: M83394  
Account: LEA - Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP13622  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date: 06/10/09

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	14	31		
Antimony	6.0	2.9	3		
Arsenic	10	2.7	3.2	-0.080	<10
Barium	200	.64	1.2	0.53	<200
Beryllium	4.0	.17	.3		
Boron	100	2.3	4.8		
Cadmium	4.0	.24	.3	0.26	<4.0
Calcium	5000	4.7	40		
Chromium	10	.51	1.4	0.11	<10
Cobalt	50	.76	1		
Copper	25	1.1	1.8	-1.0	<25
Iron	100	11	29		
Lead	5.0	1.3	1.8	1.4	<5.0
Magnesium	5000	8	10		
Manganese	15	.17	1.3		
Molybdenum	100	.5	1.4		
Nickel	40	.65	1	0.29	<40
Potassium	5000	25	31		
Selenium	10	1.6	3.3	-1.5	<10
Silver	5.0	.64	.7	0.40	<5.0
Sodium	5000	99	210		
Strontium	10	.12	.3		
Thallium	10	2	4.5		
Tin	100	1.6	9.9		
Titanium	50	4.1	5.1		
Tungsten	100	5.4	7		
Vanadium	30	.65	3.5		
Zinc	20	1.1	1.3	0.24	<20

Associated samples MP13622: M83394-2, M83394-4, M83394-6, M83394-8, M83394-10, M83394-13, M83394-15, M83394-17, M83394-19, M83394-21

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: M83394  
Account: LEA - Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP13622  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date: 06/10/09 06/10/09

Metal	M83376-4 Original MS		Spikelot MPICP	% Rec	QC Limits	M83376-4 Original DUP		RPD	QC Limits
Aluminum									
Antimony									
Arsenic	0.0	519	500	103.8	75-125	0.0	0.0	NC	0-20
Barium	266	2260	2000	99.7	75-125	266	268	0.7	0-20
Beryllium									
Boron									
Cadmium	1.2	503	500	100.4	75-125	1.2	1.5	22.2 (a)	0-20
Calcium									
Chromium	2.0	491	500	97.8	75-125	2.0	1.9	5.1	0-20
Cobalt									
Copper	20.7	553	500	106.5	75-125	20.7	20.8	0.5	0-20
Iron									
Lead	0.0	1010	1000	101.0	75-125	0.0	2.1	200.0(a)	0-20
Magnesium									
Manganese									
Molybdenum									
Nickel	89.0	584	500	99.0	75-125	89.0	89.3	0.3	0-20
Potassium									
Selenium	2.2	527	500	105.0	75-125	2.2	0.0	200.0(a)	0-20
Silver	0.0	210	200	105.0	75-125	0.0	0.0	NC	0-20
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Tungsten									
Vanadium									
Zinc	4.2	514	500	102.0	75-125	4.2	4.3	2.4	0-20

Associated samples MP13622: M83394-2, M83394-4, M83394-6, M83394-8, M83394-10, M83394-13, M83394-15, M83394-17, M83394-19, M83394-21

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) RPD acceptable due to low duplicate and sample concentrations.

## SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: M83394  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP13622  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date:

06/10/09

06/10/09

Metal	BSP Result	Spikelot MPICP	% Rec	QC Limits	BSD Result	Spikelot MPICP	% Rec	BSD RPD	QC Limit
Aluminum									
Antimony									
Arsenic	507	500	101.4	80-120	512	500	102.4	1.0	20
Barium	1990	2000	99.5	80-120	1990	2000	99.5	0.0	20
Beryllium									
Boron									
Cadmium	494	500	98.8	80-120	504	500	100.8	2.0	20
Calcium									
Chromium	485	500	97.0	80-120	492	500	98.4	1.4	20
Cobalt									
Copper	514	500	102.8	80-120	518	500	103.6	0.8	20
Iron									
Lead	998	1000	99.8	80-120	1010	1000	101.0	1.2	20
Magnesium									
Manganese									
Molybdenum									
Nickel	486	500	97.2	80-120	495	500	99.0	1.8	20
Potassium									
Selenium	517	500	103.4	80-120	523	500	104.6	1.2	20
Silver	206	200	103.0	80-120	209	200	104.5	1.4	20
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Tungsten									
Vanadium									
Zinc	497	500	99.4	80-120	509	500	101.8	2.4	20

Associated samples MP13622: M83394-2, M83394-4, M83394-6, M83394-8, M83394-10, M83394-13, M83394-15, M83394-17, M83394-19, M83394-21

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (anr) Analyte not requested



# SERIAL DILUTION RESULTS SUMMARY

Login Number: M83394  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP13622  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 06/10/09

Metal	M83376-4 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	0.00	0.00	NC	0-10
Barium	266	262	1.5	0-10
Beryllium				
Boron				
Cadmium	1.24	2.97	139.5(a)	0-10
Calcium				
Chromium	1.95	4.03	106.7(a)	0-10
Cobalt				
Copper	20.7	12.0	41.9 (a)	0-10
Iron				
Lead	0.00	0.00	NC	0-10
Magnesium				
Manganese				
Molybdenum				
Nickel	89.0	89.3	0.3	0-10
Potassium				
Selenium	2.16	0.00	100.0(a)	0-10
Silver	0.00	0.00	NC	0-10
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc	4.15	0.00	100.0(a)	0-10

Associated samples MP13622: M83394-2, M83394-4, M83394-6, M83394-8, M83394-10, M83394-13, M83394-15, M83394-17, M83394-19, M83394-21

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).



09/22/09

IT'S ALL IN THE CHEMISTRY

09/22/09

## Technical Report for

Loureiro Eng. Associates

UTC: Willow Brook & Pond 2008 Monitoring

88UT624

Accutest Job Number: M85689

Sampling Date: 09/09/09

Report to:

Loureiro Eng. Associates

rlmckinney@loureiro.com

ATTN: Robin McKinney

Total number of pages in report: **62**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Reza Pand  
Lab Director

Client Service contact: Kristen Blanchard 508-481-6200

Certifications: MA (M-MA136) CT (PH-0109) NH (2502) RI (00071) ME (MA0136) FL (E87579)  
NY (11791) NJ (MA926) NC (653) IL (200018) NAVY USACE

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Test results relate only to samples analyzed.

# Table of Contents

-1-

<b>Section 1: Sample Summary .....</b>	<b>3</b>
<b>Section 2: Case Narrative/Conformance Summary .....</b>	<b>4</b>
<b>Section 3: Sample Results .....</b>	<b>6</b>
<b>3.1:</b> M85689-1: 1130880 .....	7
<b>3.2:</b> M85689-2: 1130880UF .....	12
<b>3.3:</b> M85689-3: 1130879 .....	13
<b>3.4:</b> M85689-4: 1130879UF .....	18
<b>3.5:</b> M85689-5: 1130877 .....	19
<b>Section 4: Misc. Forms .....</b>	<b>22</b>
<b>4.1:</b> Certification Exceptions .....	23
<b>4.2:</b> Chain of Custody .....	24
<b>4.3:</b> RCP Form .....	25
<b>4.4:</b> Sample Tracking Chronicle .....	26
<b>Section 5: GC/MS Volatiles - QC Data Summaries .....</b>	<b>27</b>
<b>5.1:</b> Method Blank Summary .....	28
<b>5.2:</b> Blank Spike Summary .....	31
<b>5.3:</b> Matrix Spike/Matrix Spike Duplicate Summary .....	34
<b>5.4:</b> Internal Standard Area Summaries .....	37
<b>5.5:</b> Surrogate Recovery Summaries .....	38
<b>Section 6: GC Semi-volatiles - QC Data Summaries .....</b>	<b>39</b>
<b>6.1:</b> Method Blank Summary .....	40
<b>6.2:</b> Blank Spike Summary .....	42
<b>6.3:</b> Matrix Spike/Matrix Spike Duplicate Summary .....	44
<b>6.4:</b> Surrogate Recovery Summaries .....	46
<b>Section 7: Metals Analysis - QC Data Summaries .....</b>	<b>48</b>
<b>7.1:</b> Prep QC MP14086: As,Ba,Cd,Cr,Cu,Pb,Ni,Se,Ag,Zn .....	49
<b>7.2:</b> Prep QC MP14090: Hg .....	57
<b>7.3:</b> Prep QC MP14104: Hg .....	60



Sample Summary

Loureiro Eng. Associates

Job No: M85689

UTC:Willow Brook & Pond 2008 Monitoring  
Project No: 88UT624

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
M85689-1	09/09/09	11:46 HG	09/09/09	AQ	Ground Water	1130880
M85689-2	09/09/09	11:46 HG	09/09/09	AQ	Ground Water	1130880UF
M85689-3	09/09/09	13:19 HG	09/09/09	AQ	Ground Water	1130879
M85689-4	09/09/09	13:19 HG	09/09/09	AQ	Ground Water	1130879UF
M85689-5	09/09/09	13:00 HG	09/09/09	AQ	Ground Water	1130877

## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Loureiro Eng. Associates

**Job No** M85689

**Site:** UTC:Willow Brook & Pond 2008 Monitoring

**Report Date** 9/22/2009 12:12:38 PM

5 Sample(s) were collected on 09/09/2009 and were received at Accutest on 09/09/2009 properly preserved, at 2.3 Deg. C and intact. These Samples received an Accutest job number of M85689. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### Volatiles by GCMS By Method SW846 8260B

**Matrix** AQ

**Batch ID:** MSP1313

- All samples were analyzed within the recommended method holding time.
- Sample(s) M85683-6MS, M85683-6MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for Acetone, Chloromethane, Isopropylbenzene are outside control limits. Blank Spike meets program technical requirements.
- MS/MSD Recovery(s) for Bromomethane, Naphthalene are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Initial calibration standard in batch MSP1310 for 2-hexanone, naphthalene is employed quadratic regression.
- Continuing calibration check standard for acetone, bromomethane, isopropylbenzene exceed 30% Difference. This check standard met RCP criteria.

### Extractables by GC By Method CT-ETPH 7/06

**Matrix** AQ

**Batch ID:** OP19467

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M85661-13MS, M85661-13MSD were used as the QC samples indicated.

### Extractables by GC By Method SW846 8082

**Matrix** AQ

**Batch ID:** OP19488

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) M85833-10MS, M85833-10MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

## Metals By Method SW846 6010B

**Matrix** AQ

**Batch ID:** MP14086

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M85689-2DUP, M85689-2MS, M85689-2SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Cadmium, Chromium are outside control limits for sample MP14086-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- Only selected metals requested.

## Metals By Method SW846 7470A

**Matrix** AQ

**Batch ID:** MP14090

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M85471-7ADUP, M85471-7AMS were used as the QC samples for metals.

**Matrix** AQ

**Batch ID:** MP14104

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M85739-2DUP, M85739-2MS were used as the QC samples for metals.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety. The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(M85689).



## Sample Results

## Report of Analysis

## Report of Analysis

<b>Client Sample ID:</b>	1130880	<b>Date Sampled:</b>	09/09/09
<b>Lab Sample ID:</b>	M85689-1	<b>Date Received:</b>	09/09/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC:Willow Brook & Pond 2008 Monitoring		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P39764.D	1	09/11/09	AMY	n/a	n/a	MSP1313
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	4.3	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	1130880	<b>Date Sampled:</b>	09/09/09
<b>Lab Sample ID:</b>	M85689-1	<b>Date Received:</b>	09/09/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: Willow Brook & Pond 2008 Monitoring		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	6.7	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	19.5	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	1130880	<b>Date Sampled:</b>	09/09/09
<b>Lab Sample ID:</b>	M85689-1	<b>Date Received:</b>	09/09/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: Willow Brook & Pond 2008 Monitoring		

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	102%		70-130%
460-00-4	4-Bromofluorobenzene	106%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1130880  
**Lab Sample ID:** M85689-1  
**Matrix:** AQ - Ground Water  
**Method:** CT-ETPH 7/06 SW846 3510C  
**Project:** UTC:Willow Brook & Pond 2008 Monitoring

**Date Sampled:** 09/09/09  
**Date Received:** 09/09/09  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC31831.D	1	09/17/09	WZ	09/11/09	OP19467	GBC1670
Run #2							

	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	0.157	0.082	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	114%		50-149%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1130880		
<b>Lab Sample ID:</b>	M85689-1	<b>Date Sampled:</b>	09/09/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	09/09/09
<b>Method:</b>	SW846 8082 SW846 3510C	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC:Willow Brook & Pond 2008 Monitoring		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF70231.D	1	09/17/09	CZ	09/16/09	OP19488	GEF3230
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	72%		30-150%
877-09-8	Tetrachloro-m-xylene	82%		30-150%
2051-24-3	Decachlorobiphenyl	74%		30-150%
2051-24-3	Decachlorobiphenyl	76%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 1130880UF

Lab Sample ID: M85689-2

Date Sampled: 09/09/09

Matrix: AQ - Ground Water

Date Received: 09/09/09

Percent Solids: n/a

Project: UTC: Willow Brook &amp; Pond 2008 Monitoring

## Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	09/10/09	09/15/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Barium	376	200	ug/l	1	09/10/09	09/15/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 4.0	4.0	ug/l	1	09/10/09	09/15/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	09/10/09	09/15/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Copper	37.4	25	ug/l	1	09/10/09	09/15/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	09/10/09	09/15/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	09/11/09	09/11/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>4</sup>
Nickel	79.7	40	ug/l	1	09/10/09	09/15/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	09/10/09	09/15/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	09/10/09	09/15/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	09/10/09	09/15/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA10944

(2) Instrument QC Batch: MA10959

(3) Prep QC Batch: MP14086

(4) Prep QC Batch: MP14090

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1130879		
<b>Lab Sample ID:</b>	M85689-3	<b>Date Sampled:</b>	09/09/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	09/09/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC:Willow Brook & Pond 2008 Monitoring		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P39765.D	1	09/11/09	AMY	n/a	n/a	MSP1313
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1130879	<b>Date Sampled:</b>	09/09/09
<b>Lab Sample ID:</b>	M85689-3	<b>Date Received:</b>	09/09/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: Willow Brook & Pond 2008 Monitoring		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1130879	<b>Date Sampled:</b>	09/09/09
<b>Lab Sample ID:</b>	M85689-3	<b>Date Received:</b>	09/09/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: Willow Brook & Pond 2008 Monitoring		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	98%		70-130%
460-00-4	4-Bromofluorobenzene	106%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	1130879	<b>Date Sampled:</b>	09/09/09
<b>Lab Sample ID:</b>	M85689-3	<b>Date Received:</b>	09/09/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	CT-ETPH 7/06 SW846 3510C		
<b>Project:</b>	UTC: Willow Brook & Pond 2008 Monitoring		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC31833.D	1	09/17/09	WZ	09/11/09	OP19467	GBC1670
Run #2							

	Initial Volume	Final Volume
Run #1	930 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	0.107	0.086	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	126%		50-149%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1130879		
<b>Lab Sample ID:</b>	M85689-3	<b>Date Sampled:</b>	09/09/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	09/09/09
<b>Method:</b>	SW846 8082 SW846 3510C	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC:Willow Brook & Pond 2008 Monitoring		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF70232.D	1	09/17/09	CZ	09/16/09	OP19488	GEF3230
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	73%		30-150%
877-09-8	Tetrachloro-m-xylene	87%		30-150%
2051-24-3	Decachlorobiphenyl	85%		30-150%
2051-24-3	Decachlorobiphenyl	85%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1130879UF**Lab Sample ID:** M85689-4**Matrix:** AQ - Ground Water**Date Sampled:** 09/09/09**Date Received:** 09/09/09**Percent Solids:** n/a**Project:** UTC: Willow Brook & Pond 2008 Monitoring**Total Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	09/10/09	09/15/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Barium	< 200	200	ug/l	1	09/10/09	09/15/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 4.0	4.0	ug/l	1	09/10/09	09/15/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	09/10/09	09/15/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Copper	< 25	25	ug/l	1	09/10/09	09/15/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	09/10/09	09/15/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	09/15/09	09/15/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>4</sup>
Nickel	< 40	40	ug/l	1	09/10/09	09/15/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	09/10/09	09/15/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	09/10/09	09/15/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	09/10/09	09/15/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA10953

(2) Instrument QC Batch: MA10959

(3) Prep QC Batch: MP14086

(4) Prep QC Batch: MP14104

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1130877	<b>Date Sampled:</b>	09/09/09
<b>Lab Sample ID:</b>	M85689-5	<b>Date Received:</b>	09/09/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC:Willow Brook & Pond 2008 Monitoring		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P39766.D	1	09/11/09	AMY	n/a	n/a	MSP1313
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1130877	<b>Date Sampled:</b>	09/09/09
<b>Lab Sample ID:</b>	M85689-5	<b>Date Received:</b>	09/09/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: Willow Brook & Pond 2008 Monitoring		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	1130877		
<b>Lab Sample ID:</b>	M85689-5	<b>Date Sampled:</b>	09/09/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	09/09/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: Willow Brook & Pond 2008 Monitoring		

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	98%		70-130%
460-00-4	4-Bromofluorobenzene	106%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound



## Misc. Forms

### Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Certification Exceptions (CT)
- Chain of Custody
- RCP Form
- Sample Tracking Chronicle

Parameter Certification Exceptions

Job Number: M85689  
Account: LEA Loureiro Eng. Associates  
Project: UTC:Willow Brook & Pond 2008 Monitoring

The following parameters included in this report are exceptions to NELAC certification.  
The certification status of each is indicated below.

Parameter	CAS#	Method	Mat	Certification Status
Aroclor 1262	37324-23-5	SW846 8082	AQ	Certified by SOP MGC204/GC-ECD
Aroclor 1268	11100-14-4	SW846 8082	AQ	Certified by SOP MGC204/GC-ECD

4.1  
4





## Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

**Laboratory Name:** Accutest New England **Client:** Loureiro Eng. Associates

**Project Location:** UTC:Willow Brook & Pond 2008 Monitoring **Project Number:** 88UT624

**Sampling Date(s):** 9/9/2009

**Laboratory Sample ID(s):** M85689-1, M85689-2, M85689-3, M85689-4, M85689-5

**Methods:** CT-ETPH 7/06, SW846 6010B, 7470A, 8082, 8260B

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CTDEP method-specific Reasonable Confidence Protocol documents)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1A	Where all the method specified preservation and holding time requirements met?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1B	VPH and EPH methods only: Was the VPH or EPH method conducted without significant modifications (See section 11.3 of respective methods)	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
3	Were samples received at an appropriate temperature (<6° C)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
4	Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
5	a) Were reporting limits specified or referenced on the chain-of-custody?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
	b) Were these reporting limits met?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
7	Are project-specific matrix spikes and laboratory duplicates included in this data set?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

**Note:** For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or #1B is "No", the data package does not meet the requirements for "Reasonable Confidence".

I, the undersigned, attest under pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized

Signature:

Position: Lab Director

Printed Name: Reza Tand  
Accutest New England

Date: 9/22/2009

## Internal Sample Tracking Chronicle

Loureiro Eng. Associates

Job No: M85689

UTC: Willow Brook & Pond 2008 Monitoring  
Project No: 88UT624

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M85689-1 1130880	Collected: 09-SEP-09 11:46	By: HG	Received: 09-SEP-09 By: JB			
M85689-1	SW846 8260B	11-SEP-09 20:48	AMY			V8260RCP
M85689-1	CT-ETPH 7/06	17-SEP-09 01:43	WZ	11-SEP-09	FG	BCTTPH
M85689-1	SW846 8082	17-SEP-09 17:19	CZ	16-SEP-09	FG	P8082RCP
M85689-2 1130880UF	Collected: 09-SEP-09 11:46	By: HG	Received: 09-SEP-09 By: JB			
M85689-2	SW846 7470A	11-SEP-09 16:21	MA	11-SEP-09	MA	HG
M85689-2	SW846 6010B	15-SEP-09 16:58	PY	10-SEP-09	EAL	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M85689-3 1130879	Collected: 09-SEP-09 13:19	By: HG	Received: 09-SEP-09 By: JB			
M85689-3	SW846 8260B	11-SEP-09 21:16	AMY			V8260RCP
M85689-3	CT-ETPH 7/06	17-SEP-09 02:22	WZ	11-SEP-09	FG	BCTTPH
M85689-3	SW846 8082	17-SEP-09 21:45	CZ	16-SEP-09	FG	P8082RCP
M85689-4 1130879UF	Collected: 09-SEP-09 13:19	By: HG	Received: 09-SEP-09 By: JB			
M85689-4	SW846 7470A	15-SEP-09 13:14	MA	15-SEP-09	MA	HG
M85689-4	SW846 6010B	15-SEP-09 17:50	PY	10-SEP-09	EAL	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M85689-5 1130877	Collected: 09-SEP-09 13:00	By: HG	Received: 09-SEP-09 By: JB			
M85689-5	SW846 8260B	11-SEP-09 21:45	AMY			V8260RCP



## GC/MS Volatiles

5

### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

## Method Blank Summary

Page 1 of 3

**Job Number:** M85689  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC:Willow Brook & Pond 2008 Monitoring

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1313-MB	P39752.D	1	09/11/09	AMY	n/a	n/a	MSP1313

The QC reported here applies to the following samples:

Method: SW846 8260B

M85689-1, M85689-3, M85689-5

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	

## Method Blank Summary

Page 2 of 3

**Job Number:** M85689  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC:Willow Brook & Pond 2008 Monitoring

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1313-MB	P39752.D	1	09/11/09	AMY	n/a	n/a	MSP1313

The QC reported here applies to the following samples:

Method: SW846 8260B

M85689-1, M85689-3, M85689-5

CAS No.	Compound	Result	RL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

Method Blank Summary

Job Number: M85689  
Account: LEA Loureiro Eng. Associates  
Project: UTC:Willow Brook & Pond 2008 Monitoring

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1313-MB	P39752.D	1	09/11/09	AMY	n/a	n/a	MSP1313

The QC reported here applies to the following samples: Method: SW846 8260B

M85689-1, M85689-3, M85689-5

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	94% 70-130%
2037-26-5	Toluene-D8	98% 70-130%
460-00-4	4-Bromofluorobenzene	101% 70-130%

## Blank Spike Summary

Page 1 of 3

**Job Number:** M85689  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC:Willow Brook & Pond 2008 Monitoring

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1313-B5	P39750.D	1	09/11/09	AMY	n/a	n/a	MSP1313

The QC reported here applies to the following samples:

Method: SW846 8260B

M85689-1, M85689-3, M85689-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	67.4	135* a	70-130
107-13-1	Acrylonitrile	250	256	102	70-130
71-43-2	Benzene	50	50.9	102	70-130
108-86-1	Bromobenzene	50	52.0	104	70-130
75-27-4	Bromodichloromethane	50	49.5	99	70-130
75-25-2	Bromoform	50	46.0	92	70-130
74-83-9	Bromomethane	50	36.8	74	70-130
78-93-3	2-Butanone (MEK)	50	45.9	92	70-130
104-51-8	n-Butylbenzene	50	51.5	103	70-130
135-98-8	sec-Butylbenzene	50	55.6	111	70-130
98-06-6	tert-Butylbenzene	50	53.7	107	70-130
75-15-0	Carbon disulfide	50	49.3	99	70-130
56-23-5	Carbon tetrachloride	50	49.7	99	70-130
108-90-7	Chlorobenzene	50	50.6	101	70-130
75-00-3	Chloroethane	50	47.9	96	70-130
67-66-3	Chloroform	50	48.4	97	70-130
74-87-3	Chloromethane	50	34.3	69* a	70-130
95-49-8	o-Chlorotoluene	50	53.6	107	70-130
106-43-4	p-Chlorotoluene	50	54.0	108	70-130
96-12-8	1,2-Dibromo-3-chloropropane	50	48.0	96	70-130
124-48-1	Dibromochloromethane	50	53.1	106	70-130
106-93-4	1,2-Dibromoethane	50	51.5	103	70-130
95-50-1	1,2-Dichlorobenzene	50	52.0	104	70-130
541-73-1	1,3-Dichlorobenzene	50	51.5	103	70-130
106-46-7	1,4-Dichlorobenzene	50	50.2	100	70-130
75-71-8	Dichlorodifluoromethane	50	51.1	102	70-130
75-34-3	1,1-Dichloroethane	50	48.7	97	70-130
107-06-2	1,2-Dichloroethane	50	45.1	90	70-130
75-35-4	1,1-Dichloroethene	50	52.4	105	70-130
156-59-2	cis-1,2-Dichloroethene	50	51.8	104	70-130
156-60-5	trans-1,2-Dichloroethene	50	49.9	100	70-130
78-87-5	1,2-Dichloropropane	50	50.2	100	70-130
142-28-9	1,3-Dichloropropane	50	50.4	101	70-130
594-20-7	2,2-Dichloropropane	50	42.9	86	70-130
563-58-6	1,1-Dichloropropene	50	52.9	106	70-130
10061-01-5	cis-1,3-Dichloropropene	50	46.4	93	70-130



## Blank Spike Summary

Page 2 of 3

**Job Number:** M85689  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC:Willow Brook & Pond 2008 Monitoring

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1313-BS	P39750.D	1	09/11/09	AMY	n/a	n/a	MSP1313

The QC reported here applies to the following samples:

Method: SW846 8260B

M85689-1, M85689-3, M85689-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-02-6	trans-1,3-Dichloropropene	50	46.7	93	70-130
100-41-4	Ethylbenzene	50	54.5	109	70-130
76-13-1	Freon 113	50	55.6	111	70-130
87-68-3	Hexachlorobutadiene	50	45.6	91	70-130
591-78-6	2-Hexanone	50	47.2	94	70-130
98-82-8	Isopropylbenzene	50	66.0	132* a	70-130
99-87-6	p-Isopropyltoluene	50	55.7	111	70-130
1634-04-4	Methyl Tert Butyl Ether	50	52.3	105	70-130
108-10-1	4-Methyl-2-pentanone (MIBK)	50	47.7	95	70-130
74-95-3	Methylene bromide	50	49.6	99	70-130
75-09-2	Methylene chloride	50	47.4	95	70-130
91-20-3	Naphthalene	50	40.4	81	70-130
103-65-1	n-Propylbenzene	50	56.8	114	70-130
100-42-5	Styrene	50	50.8	102	70-130
630-20-6	1,1,1,2-Tetrachloroethane	50	50.0	100	70-130
79-34-5	1,1,2,2-Tetrachloroethane	50	53.1	106	70-130
127-18-4	Tetrachloroethene	50	54.5	109	70-130
109-99-9	Tetrahydrofuran	50	50.3	101	70-130
108-88-3	Toluene	50	52.3	105	70-130
110-57-6	Trans-1,4-Dichloro-2-Butene	50	47.2	94	70-130
87-61-6	1,2,3-Trichlorobenzene	50	46.5	93	70-130
120-82-1	1,2,4-Trichlorobenzene	50	48.8	98	70-130
71-55-6	1,1,1-Trichloroethane	50	49.9	100	70-130
79-00-5	1,1,2-Trichloroethane	50	51.3	103	70-130
79-01-6	Trichloroethene	50	50.8	102	70-130
75-69-4	Trichlorofluoromethane	50	48.8	98	70-130
96-18-4	1,2,3-Trichloropropane	50	48.8	98	70-130
95-63-6	1,2,4-Trimethylbenzene	50	57.7	115	70-130
108-67-8	1,3,5-Trimethylbenzene	50	56.3	113	70-130
75-01-4	Vinyl chloride	50	49.9	100	70-130
	m,p-Xylene	100	112	112	70-130
95-47-6	o-Xylene	50	54.9	110	70-130

## Blank Spike Summary

Page 3 of 3

**Job Number:** M85689

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC:Willow Brook & Pond 2008 Monitoring

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP1313-BS	P39750.D	1	09/11/09	AMY	n/a	n/a	MSP1313

The QC reported here applies to the following samples:

Method: SW846 8260B

M85689-1, M85689-3, M85689-5

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	96%	70-130%
2037-26-5	Toluene-D8	101%	70-130%
460-00-4	4-Bromofluorobenzene	101%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 3

**Job Number:** M85689**Account:** LEA Loureiro Eng. Associates**Project:** UTC:Willow Brook & Pond 2008 Monitoring

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M85683-6MS	P39773.D	5	09/12/09	AMY	n/a	n/a	MSP1313
M85683-6MSD	P39774.D	5	09/12/09	AMY	n/a	n/a	MSP1313
M85683-6	P39762.D	1	09/11/09	AMY	n/a	n/a	MSP1313

**The QC reported here applies to the following samples:****Method:** SW846 8260B

M85689-1, M85689-3, M85689-5

CAS No.	Compound	M85683-6 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND	250	246	98	234	94	5	70-130/30
107-13-1	Acrylonitrile	ND	1250	1290	103	1210	97	6	70-130/30
71-43-2	Benzene	ND	250	262	105	261	104	0	70-130/30
108-86-1	Bromobenzene	ND	250	246	98	246	98	0	70-130/30
75-27-4	Bromodichloromethane	ND	250	279	112	273	109	2	70-130/30
75-25-2	Bromoform	ND	250	234	94	233	93	0	70-130/30
74-83-9	Bromomethane	ND	250	77.0	31* a	103	41* a	29	70-130/30
78-93-3	2-Butanone (MEK)	ND	250	260	104	254	102	2	70-130/30
104-51-8	n-Butylbenzene	ND	250	245	98	254	102	4	70-130/30
135-98-8	sec-Butylbenzene	ND	250	272	109	277	111	2	70-130/30
98-06-6	tert-Butylbenzene	ND	250	278	111	282	113	1	70-130/30
75-15-0	Carbon disulfide	ND	250	272	109	263	105	3	70-130/30
56-23-5	Carbon tetrachloride	ND	250	253	101	255	102	1	70-130/30
108-90-7	Chlorobenzene	ND	250	245	98	243	97	1	70-130/30
75-00-3	Chloroethane	ND	250	254	102	248	99	2	70-130/30
67-66-3	Chloroform	ND	250	274	110	260	104	5	70-130/30
74-87-3	Chloromethane	ND	250	198	79	191	76	4	70-130/30
95-49-8	o-Chlorotoluene	ND	250	266	106	265	106	0	70-130/30
106-43-4	p-Chlorotoluene	ND	250	271	108	271	108	0	70-130/30
96-12-8	1,2-Dibromo-3-chloropropane	ND	250	229	92	244	98	6	70-130/30
124-48-1	Dibromochloromethane	ND	250	268	107	267	107	0	70-130/30
106-93-4	1,2-Dibromoethane	ND	250	249	100	249	100	0	70-130/30
95-50-1	1,2-Dichlorobenzene	ND	250	251	100	258	103	3	70-130/30
541-73-1	1,3-Dichlorobenzene	ND	250	252	101	254	102	1	70-130/30
106-46-7	1,4-Dichlorobenzene	ND	250	246	98	248	99	1	70-130/30
75-71-8	Dichlorodifluoromethane	ND	250	280	112	283	113	1	70-130/30
75-34-3	1,1-Dichloroethane	ND	250	265	106	256	102	3	70-130/30
107-06-2	1,2-Dichloroethane	ND	250	264	106	262	105	1	70-130/30
75-35-4	1,1-Dichloroethene	ND	250	267	107	261	104	2	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND	250	265	106	253	101	5	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND	250	246	98	249	100	1	70-130/30
78-87-5	1,2-Dichloropropane	ND	250	261	104	257	103	2	70-130/30
142-28-9	1,3-Dichloropropane	ND	250	254	102	252	101	1	70-130/30
594-20-7	2,2-Dichloropropane	ND	250	205	82	195	78	5	70-130/30
563-58-6	1,1-Dichloropropene	ND	250	279	112	271	108	3	70-130/30
10061-01-5	cis-1,3-Dichloropropene	ND	250	224	90	222	89	1	70-130/30

# Matrix Spike/Matrix Spike Duplicate Summary

Page 2 of 3

**Job Number:** M85689

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC:Willow Brook & Pond 2008 Monitoring

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M85683-6MS	P39773.D	5	09/12/09	AMY	n/a	n/a	MSP1313
M85683-6MSD	P39774.D	5	09/12/09	AMY	n/a	n/a	MSP1313
M85683-6	P39762.D	1	09/11/09	AMY	n/a	n/a	MSP1313

The QC reported here applies to the following samples:

Method: SW846 8260B

M85689-1, M85689-3, M85689-5

CAS No.	Compound	M85683-6 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	ND	250	227	91	219	88	4	70-130/30
100-41-4	Ethylbenzene	ND	250	269	108	267	107	1	70-130/30
76-13-1	Freon 113	ND	250	275	110	270	108	2	70-130/30
87-68-3	Hexachlorobutadiene	ND	250	222	89	231	92	4	70-130/30
591-78-6	2-Hexanone	ND	250	215	86	187	75	14	70-130/30
98-82-8	Isopropylbenzene	ND	250	317	127	320	128	1	70-130/30
99-87-6	p-Isopropyltoluene	ND	250	270	108	275	110	2	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND	250	265	106	253	101	5	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	250	232	93	220	88	5	70-130/30
74-95-3	Methylene bromide	ND	250	267	107	260	104	3	70-130/30
75-09-2	Methylene chloride	ND	250	250	100	246	98	2	70-130/30
91-20-3	Naphthalene	ND	250	156	62* a	160	64* a	3	70-130/30
103-65-1	n-Propylbenzene	ND	250	275	110	278	111	1	70-130/30
100-42-5	Styrene	ND	250	242	97	243	97	0	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND	250	257	103	254	102	1	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND	250	257	103	256	102	0	70-130/30
127-18-4	Tetrachloroethene	ND	250	260	104	256	102	2	70-130/30
109-99-9	Tetrahydrofuran	ND	250	252	101	222	89	13	70-130/30
108-88-3	Toluene	ND	250	267	107	262	105	2	70-130/30
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	250	218	87	211	84	3	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND	250	213	85	226	90	6	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND	250	221	88	233	93	5	70-130/30
71-55-6	1,1,1-Trichloroethane	ND	250	296	118	280	112	6	70-130/30
79-00-5	1,1,2-Trichloroethane	ND	250	263	105	262	105	0	70-130/30
79-01-6	Trichloroethene	ND	250	271	108	266	106	2	70-130/30
75-69-4	Trichlorofluoromethane	ND	250	285	114	275	110	4	70-130/30
96-18-4	1,2,3-Trichloropropane	ND	250	223	89	229	92	3	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND	250	282	113	290	116	3	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND	250	277	111	280	112	1	70-130/30
75-01-4	Vinyl chloride	ND	250	277	111	274	110	1	70-130/30
	m,p-Xylene	ND	500	549	110	542	108	1	70-130/30
95-47-6	o-Xylene	ND	250	276	110	273	109	1	70-130/30

## Matrix Spike/Matrix Spike Duplicate Summary

Page 3 of 3

**Job Number:** M85689

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC:Willow Brook & Pond 2008 Monitoring

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M85683-6MS	P39773.D	5	09/12/09	AMY	n/a	n/a	MSP1313
M85683-6MSD	P39774.D	5	09/12/09	AMY	n/a	n/a	MSP1313
M85683-6	P39762.D	1	09/11/09	AMY	n/a	n/a	MSP1313

The QC reported here applies to the following samples:

Method: SW846 8260B

M85689-1, M85689-3, M85689-5

CAS No.	Surrogate Recoveries	MS	MSD	M85683-6	Limits
1868-53-7	Dibromofluoromethane	100%	101%	99%	70-130%
2037-26-5	Toluene-D8	101%	101%	98%	70-130%
460-00-4	4-Bromofluorobenzene	99%	98%	105%	70-130%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

# Volatile Internal Standard Area Summary

Page 1 of 1

**Job Number:** M85689  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC:Willow Brook & Pond 2008 Monitoring

**Check Std:** MSP1313-CC1310      **Injection Date:** 09/11/09  
**Lab File ID:** P39749.D      **Injection Time:** 13:48  
**Instrument ID:** GCMSP      **Method:** SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	294249	8.89	421867	9.76	255922	13.00	187303	15.56	69813	6.61
Upper Limit <sup>a</sup>	588498	9.39	843734	10.26	511844	13.50	374606	16.06	139626	7.11
Lower Limit <sup>b</sup>	147125	8.39	210934	9.26	127961	12.50	93652	15.06	34907	6.11

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSP1313-BS	289836	8.89	413789	9.76	252587	13.01	182528	15.56	72688	6.60
MSP1313-MB	262644	8.90	374969	9.77	214897	13.01	152521	15.57	50066	6.64
ZZZZZZ	255677	8.90	366854	9.77	206700	13.01	146551	15.57	57787	6.65
ZZZZZZ	250243	8.90	354408	9.76	205279	13.01	141372	15.57	54249	6.66
ZZZZZZ	242611	8.90	339129	9.77	195897	13.01	135005	15.57	50200	6.67
ZZZZZZ	236059	8.90	338216	9.77	194261	13.01	133609	15.57	57520	6.64
ZZZZZZ	241559	8.89	342484	9.76	197823	13.01	146609	15.57	54777	6.63
ZZZZZZ	240777	8.90	343092	9.77	192655	13.01	135559	15.57	67543	6.65
M85683-6	212320	8.90	303774	9.77	177616	13.01	121268	15.57	46344	6.66
ZZZZZZ	206040	8.90	295505	9.77	175536	13.01	120661	15.57	45392	6.67
M85689-1	206897	8.90	282930	9.76	173601	13.01	115394	15.57	53553	6.65
M85689-3	202075	8.90	284338	9.77	166332	13.01	111208	15.57	45786	6.67
M85689-5	199981	8.90	280628	9.77	166430	13.01	111011	15.57	47168	6.66
ZZZZZZ	194294	8.90	276171	9.77	162042	13.01	114501	15.57	45810	6.67
ZZZZZZ	190931	8.89	270071	9.77	163231	13.01	114805	15.57	55378	6.65
ZZZZZZ	189072	8.90	269904	9.77	161037	13.01	109009	15.57	41877	6.66
ZZZZZZ	187700	8.90	263531	9.77	156853	13.01	107722	15.57	38930	6.67
ZZZZZZ	179247	8.89	256383	9.77	154355	13.01	102558	15.57	39574	6.66
ZZZZZZ	179273	8.89	255110	9.77	154665	13.01	107176	15.57	42040	6.66
M85683-6MS	201600	8.89	285884	9.76	182969	13.00	140049	15.56	53780	6.60
M85683-6MSD	216622	8.89	303946	9.76	193153	13.00	145264	15.56	45581	6.62

**IS 1** = Pentafluorobenzene  
**IS 2** = 1,4-Difluorobenzene  
**IS 3** = Chlorobenzene-D5  
**IS 4** = 1,4-Dichlorobenzene-d4  
**IS 5** = Tert Butyl Alcohol-D9

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

# Volatile Surrogate Recovery Summary

Page 1 of 1

**Job Number:** M85689

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC:Willow Brook & Pond 2008 Monitoring

**Method:** SW846 8260B

**Matrix:** AQ

**Samples and QC shown here apply to the above method**

Lab Sample ID	Lab File ID	S1	S2	S3
M85689-1	P39764.D	102.0	102.0	106.0
M85689-3	P39765.D	100.0	98.0	106.0
M85689-5	P39766.D	103.0	98.0	106.0
M85683-6MS	P39773.D	100.0	101.0	99.0
M85683-6MSD	P39774.D	101.0	101.0	98.0
MSP1313-BS	P39750.D	96.0	101.0	101.0
MSP1313-MB	P39752.D	94.0	98.0	101.0

## Surrogate Compounds

## Recovery Limits

**S1** = Dibromofluoromethane

70-130%

**S2** = Toluene-D8

70-130%

**S3** = 4-Bromofluorobenzene

70-130%



## GC Semi-volatiles

### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries



## Method Blank Summary

Page 1 of 1

**Job Number:** M85689  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC:Willow Brook & Pond 2008 Monitoring

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19467-MB	BC31744.D	1	09/14/09	WZ	09/11/09	OP19467	GBC1667

The QC reported here applies to the following samples:

Method: CT-ETPH 7/06

M85689-1, M85689-3

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	ND	0.080	mg/l	

CAS No.	Surrogate Recoveries	Limits
3386-33-2	1-Chlorooctadecane	79% 50-149%

## Method Blank Summary

Page 1 of 1

**Job Number:** M85689  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC:Willow Brook & Pond 2008 Monitoring

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19488-MB	EF70226.D	1	09/17/09	CZ	09/16/09	OP19488	GEF3230

The QC reported here applies to the following samples:

Method: SW846 8082

M85689-1, M85689-3

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	ug/l	

CAS No.	Surrogate Recoveries	Limits
877-09-8	Tetrachloro-m-xylene	85% 30-150%
877-09-8	Tetrachloro-m-xylene	82% 30-150%
2051-24-3	Decachlorobiphenyl	44% 30-150%
2051-24-3	Decachlorobiphenyl	46% 30-150%

## Blank Spike Summary

Page 1 of 1

**Job Number:** M85689

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC:Willow Brook & Pond 2008 Monitoring

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19467-BS	BC31746.D	1	09/14/09	WZ	09/11/09	OP19467	GBC1667

The QC reported here applies to the following samples:

Method: CT-ETPH 7/06

M85689-1, M85689-3

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	CT-DRO (C9-C36)	0.7	0.534	76	60-120

CAS No.	Surrogate Recoveries	BSP	Limits
3386-33-2	1-Chlorooctadecane	84%	50-149%

6.2.1

6

## Blank Spike Summary

Page 1 of 1

**Job Number:** M85689

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC:Willow Brook & Pond 2008 Monitoring

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19488-BS	EF70227.D	1	09/17/09	CZ	09/16/09	OP19488	GEF3230

The QC reported here applies to the following samples:

Method: SW846 8082

M85689-1, M85689-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
12674-11-2	Aroclor 1016	2	2.3	115	40-140
11104-28-2	Aroclor 1221		ND		40-140
11141-16-5	Aroclor 1232		ND		40-140
53469-21-9	Aroclor 1242		ND		40-140
12672-29-6	Aroclor 1248		ND		40-140
11097-69-1	Aroclor 1254		ND		40-140
11096-82-5	Aroclor 1260	2	2.0	100	40-140
37324-23-5	Aroclor 1262		ND		40-140
11100-14-4	Aroclor 1268		ND		40-140

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	90%	30-150%
877-09-8	Tetrachloro-m-xylene	89%	30-150%
2051-24-3	Decachlorobiphenyl	51%	30-150%
2051-24-3	Decachlorobiphenyl	50%	30-150%

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

**Job Number:** M85689

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC:Willow Brook & Pond 2008 Monitoring

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19467-MS	BC31748.D	1	09/14/09	WZ	09/11/09	OP19467	GBC1667
OP19467-MSD	BC31750.D	1	09/14/09	WZ	09/11/09	OP19467	GBC1667
M85661-13	BC31752.D	1	09/14/09	WZ	09/11/09	OP19467	GBC1667

The QC reported here applies to the following samples:

Method: CT-ETPH 7/06

M85689-1, M85689-3

CAS No.	Compound	M85661-13 mg/l	Spike Q	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	CT-DRO (C9-C36)	ND	0.7	0.645	92	0.622	89	4	50-129/26

CAS No.	Surrogate Recoveries	MS	MSD	M85661-13	Limits
3386-33-2	1-Chlorooctadecane	92%	87%	80%	50-149%

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

**Job Number:** M85689

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC:Willow Brook & Pond 2008 Monitoring

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19488-MS	EF70228.D	1	09/17/09	CZ	09/16/09	OP19488	GEF3230
OP19488-MSD	EF70229.D	1	09/17/09	CZ	09/16/09	OP19488	GEF3230
M85833-10	EF70230.D	1	09/17/09	CZ	09/16/09	OP19488	GEF3230

The QC reported here applies to the following samples:

Method: SW846 8082

M85689-1, M85689-3

CAS No.	Compound	M85833-10 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	ND	2	2.2	110	2.1	105	5	40-140/50
11104-28-2	Aroclor 1221	ND		ND		ND		nc	40-140/50
11141-16-5	Aroclor 1232	ND		ND		ND		nc	40-140/50
53469-21-9	Aroclor 1242	ND		ND		ND		nc	40-140/50
12672-29-6	Aroclor 1248	ND		ND		ND		nc	40-140/50
11097-69-1	Aroclor 1254	ND		ND		ND		nc	40-140/50
11096-82-5	Aroclor 1260	ND	2	2.1	105	1.9	95	10	40-140/50
37324-23-5	Aroclor 1262	ND		ND		ND		nc	40-140/50
11100-14-4	Aroclor 1268	ND		ND		ND		nc	40-140/50

CAS No.	Surrogate Recoveries	MS	MSD	M85833-10	Limits
877-09-8	Tetrachloro-m-xylene	82%	73%	80%	30-150%
877-09-8	Tetrachloro-m-xylene	82%	84%	89%	30-150%
2051-24-3	Decachlorobiphenyl	45%	47%	48%	30-150%
2051-24-3	Decachlorobiphenyl	46%	48%	46%	30-150%

Semivolatile Surrogate Recovery Summary

Job Number: M85689  
Account: LEA Loureiro Eng. Associates  
Project: UTC:Willow Brook & Pond 2008 Monitoring

Method: CT-ETPH 7/06	Matrix: AQ
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 <sup>a</sup>
M85689-1	BC31831.D	114.0
M85689-3	BC31833.D	126.0
OP19467-BS	BC31746.D	84.0
OP19467-MB	BC31744.D	79.0
OP19467-MS	BC31748.D	92.0
OP19467-MSD	BC31750.D	87.0

Surrogate Compounds	Recovery Limits
S1 = 1-Chlorooctadecane	50-149%

(a) Recovery from GC signal #1

6.4.1  
6

## Semivolatile Surrogate Recovery Summary

Page 1 of 1

**Job Number:** M85689

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC:Willow Brook & Pond 2008 Monitoring

**Method:** SW846 8082

**Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 <sup>a</sup>	S1 <sup>b</sup>	S2 <sup>a</sup>	S2 <sup>b</sup>
M85689-1	EF70231.D	72.0	82.0	74.0	76.0
M85689-3	EF70232.D	73.0	87.0	85.0	85.0
OP19488-BS	EF70227.D	90.0	89.0	51.0	50.0
OP19488-MB	EF70226.D	85.0	82.0	44.0	46.0
OP19488-MS	EF70228.D	82.0	82.0	45.0	46.0
OP19488-MSD	EF70229.D	73.0	84.0	47.0	48.0

### Surrogate Compounds

### Recovery Limits

S1 = Tetrachloro-m-xylene

30-150%

S2 = Decachlorobiphenyl

30-150%

(a) Recovery from GC signal #1

(b) Recovery from GC signal #2

6.4.2

6





## Metals Analysis

### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: M85689  
Account: LEA - Loureiro Eng. Associates  
Project: UTC:Willow Brook & Pond 2008 Monitoring

QC Batch ID: MP14086  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date: 09/10/09

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	27	40		
Antimony	6.0	1.4	1.6		
Arsenic	10	1	1.8	-1.2	<10
Barium	200	.57	1.1	-0.10	<200
Beryllium	4.0	.15	.4		
Boron	100	.65	2.3		
Cadmium	4.0	.24	1.9	-0.10	<4.0
Calcium	5000	7.6	15		
Chromium	10	.81	1.1	-0.30	<10
Cobalt	50	.25	.3		
Copper	25	2.2	4	0.10	<25
Gold	50	1.1	4.2		
Iron	100	3.7	13		
Lead	5.0	1.1	2.7	0.70	<5.0
Magnesium	5000	37	77		
Manganese	15	.12	1.1		
Molybdenum	100	.22	.8		
Nickel	40	.24	1.3	-0.10	<40
Palladium	50	2.2	4		
Platinum	50	9.3	13		
Potassium	5000	39	46		
Selenium	10	1.9	3.5	0.0	<10
Silicon	100	8.9	36		
Silver	5.0	.54	1.3	-0.20	<5.0
Sodium	5000	61	160		
Strontium	10	.24	.3		
Thallium	10	1.2	1.3		
Tin	100	.65	1.3		
Titanium	50	.74	.8		
Tungsten	100	5.6	8		
Vanadium	30	.68	1.6		
Zinc	20	.74	1.5	0.70	<20

Associated samples MP14086: M85689-2, M85689-4

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: M85689  
Account: LEA - Loureiro Eng. Associates  
Project: UTC:Willow Brook & Pond 2008 Monitoring

QC Batch ID: MP14086  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date:

Metal

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: M85689  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC:Willow Brook & Pond 2008 Monitoring

QC Batch ID: MP14086  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 09/10/09 09/10/09

Metal	M85689-2 Original MS		Spikelot MPICP	% Rec	QC Limits	M85689-2 Original DUP		RPD	QC Limits
Aluminum									
Antimony	anr								
Arsenic	0.0	528	500	105.6	75-125	0.0	0.0	NC	0-20
Barium	376	2350	2000	98.7	75-125	376	381	1.3	0-20
Beryllium	anr								
Boron									
Cadmium	1.4	541	500	107.9	75-125	1.4	1.6	13.3	0-20
Calcium									
Chromium	6.2	496	500	98.0	75-125	6.2	6.0	3.3	0-20
Cobalt									
Copper	37.4	555	500	103.5	75-125	37.4	39.0	4.2	0-20
Gold									
Iron									
Lead	0.0	965	1000	96.5	75-125	0.0	0.0	NC	0-20
Magnesium									
Manganese									
Molybdenum									
Nickel	79.7	560	500	96.1	75-125	79.7	80.8	1.4	0-20
Palladium									
Platinum									
Potassium									
Selenium	0.0	539	500	107.8	75-125	0.0	0.0	NC	0-20
Silicon									
Silver	0.0	216	200	108.0	75-125	0.0	0.0	NC	0-20
Sodium									
Strontium									
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium									
Zinc	13.1	520	500	101.4	75-125	13.1	13.6	3.7	0-20

Associated samples MP14086: M85689-2, M85689-4

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: M85689  
Account: LEA - Loureiro Eng. Associates  
Project: UTC:Willow Brook & Pond 2008 Monitoring

QC Batch ID: MP14086  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date:

Metal

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(N) Matrix Spike Rec. outside of QC limits  
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: M85689  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC:Willow Brook & Pond 2008 Monitoring

QC Batch ID: MP14086  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 09/10/09 09/10/09

Metal	BSP Result	Spikelot MPICP	% Rec	QC Limits	BSD Result	Spikelot MPICP	% Rec	BSD RPD	QC Limit
Aluminum									
Antimony	anr								
Arsenic	511	500	102.2	80-120	515	500	103.0	0.8	20
Barium	1960	2000	98.0	80-120	1950	2000	97.5	0.5	20
Beryllium	anr								
Boron									
Cadmium	514	500	102.8	80-120	533	500	106.6	3.6	20
Calcium									
Chromium	487	500	97.4	80-120	492	500	98.4	1.0	20
Cobalt									
Copper	501	500	100.2	80-120	513	500	102.6	2.4	20
Gold									
Iron									
Lead	979	1000	97.9	80-120	997	1000	99.7	1.8	20
Magnesium									
Manganese									
Molybdenum									
Nickel	485	500	97.0	80-120	489	500	97.8	0.8	20
Palladium									
Platinum									
Potassium									
Selenium	523	500	104.6	80-120	533	500	106.6	1.9	20
Silicon									
Silver	204	200	102.0	80-120	207	200	103.5	1.5	20
Sodium									
Strontium									
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium									
Zinc	504	500	100.8	80-120	519	500	103.8	2.9	20

Associated samples MP14086: M85689-2, M85689-4

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: M85689

Account: LEA - Loureiro Eng. Associates

Project: UTC:Willow Brook & Pond 2008 Monitoring

QC Batch ID: MP14086

Methods: SW846 6010B

Matrix Type: AQUEOUS

Units: ug/l

Prep Date:

Metal

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: M85689  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC:Willow Brook & Pond 2008 Monitoring

QC Batch ID: MP14086  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 09/10/09

Metal	M85689-2 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	anr			
Arsenic	0.00	0.00	NC	0-10
Barium	376	369	1.7	0-10
Beryllium	anr			
Boron				
Cadmium	1.40	0.00	100.0(a)	0-10
Calcium				
Chromium	6.20	5.20	16.1 (a)	0-10
Cobalt				
Copper	37.4	35.9	4.0	0-10
Gold				
Iron				
Lead	0.00	0.00	NC	0-10
Magnesium				
Manganese				
Molybdenum				
Nickel	79.7	79.4	0.4	0-10
Palladium				
Platinum				
Potassium				
Selenium	0.00	0.00	NC	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium				
Strontium				
Thallium	anr			
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc	13.1	13.5	3.1	0-10

Associated samples MP14086: M85689-2, M85689-4

7.1.4  
7



SERIAL DILUTION RESULTS SUMMARY

Login Number: M85689  
Account: LEA - Loureiro Eng. Associates  
Project: UTC:Willow Brook & Pond 2008 Monitoring

QC Batch ID: MP14086  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date:

Metal

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

7.1.4

7

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: M85689  
Account: LEA - Loureiro Eng. Associates  
Project: UTC:Willow Brook & Pond 2008 Monitoring

QC Batch ID: MP14090  
Matrix Type: AQUEOUS

Methods: SW846 7470A  
Units: ug/l

Prep Date: 09/11/09

Metal	RL	IDL	MDL	MB	
				raw	final
Mercury	0.20	.035	.048	0.032	<0.20

Associated samples MP14090: M85689-2

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

7.2.1

7

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: M85689  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC:Willow Brook & Pond 2008 Monitoring

QC Batch ID: MP14090  
 Matrix Type: AQUEOUS

Methods: SW846 7470A  
 Units: ug/l

Prep Date: 09/11/09 09/11/09

Metal	M85471-7A		Spikelot		QC	M85471-7A			QC
	Original MS		HGRWS1	% Rec	Limits	Original DUP		RPD	Limits
Mercury	0.0	3.1	3	103.3	75-125	0.0	0.0	NC	0-20

Associated samples MP14090: M85689-2

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

7.2.2

7

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: M85689  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC:Willow Brook & Pond 2008 Monitoring

QC Batch ID: MP14090  
 Matrix Type: AQUEOUS

Methods: SW846 7470A  
 Units: ug/l

Prep Date: 09/11/09 09/11/09

Metal	BSP Result	Spikelot HGRWS1	% Rec	QC Limits	BSD Result	Spikelot HGRWS1	% Rec	BSD RPD	QC Limit
Mercury	3.1	3	103.3	80-120	3.1	3	103.3	0.0	20

Associated samples MP14090: M85689-2

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (anr) Analyte not requested

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: M85689  
Account: LEA - Loureiro Eng. Associates  
Project: UTC:Willow Brook & Pond 2008 Monitoring

QC Batch ID: MP14104  
Matrix Type: AQUEOUS

Methods: SW846 7470A  
Units: ug/l

Prep Date: 09/15/09

Metal	RL	IDL	MDL	MB	
				raw	final
Mercury	0.20	.035	.048	0.023	<0.20

Associated samples MP14104: M85689-4

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

7.3.1

7

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: M85689  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC:Willow Brook & Pond 2008 Monitoring

QC Batch ID: MP14104  
 Matrix Type: AQUEOUS

Methods: SW846 7470A  
 Units: ug/l

Prep Date: 09/15/09 09/15/09

Metal	M85739-2 Original MS		Spikelot HGRWS1 % Rec		QC Limits	M85739-2 Original DUP		RPD	QC Limits
Mercury	0.0	3.1	3	103.3	75-125	0.0	0.0	NC	0-20

Associated samples MP14104: M85689-4

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: M85689  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC:Willow Brook & Pond 2008 Monitoring

QC Batch ID: MP14104  
 Matrix Type: AQUEOUS

Methods: SW846 7470A  
 Units: ug/l

Prep Date: 09/15/09 09/15/09

Metal	BSP Result	Spikelot HGRWS1	% Rec	QC Limits	BSD Result	Spikelot HGRWS1	% Rec	BSD RPD	QC Limit
Mercury	2.9	3	96.7	80-120	2.9	3	96.7	0.0	20

Associated samples MP14104: M85689-4

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (anr) Analyte not requested



09/25/09

IT'S ALL IN THE CHEMISTRY

09/25/09

## Technical Report for

Loureiro Eng. Associates

UTC: 2009 Quarterly GW-Willow Pond

88UT907

Accutest Job Number: M85739

Sampling Date: 09/10/09

Report to:

Loureiro Eng. Associates

rlmckinney@loureiro.com

ATTN: Robin McKinney

Total number of pages in report: **100**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Reza Fand  
Lab Director

Client Service contact: Kristen Blanchard 508-481-6200

Certifications: MA (M-MA136) CT (PH-0109) NH (2502) RI (00071) ME (MA0136) FL (E87579)  
NY (11791) NJ (MA926) NC (653) IL (200018) NAVY USACE

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Test results relate only to samples analyzed.



# Table of Contents

-1-

<b>Section 1: Sample Summary .....</b>	<b>3</b>
<b>Section 2: Case Narrative/Conformance Summary .....</b>	<b>5</b>
<b>Section 3: Sample Results .....</b>	<b>7</b>
<b>3.1:</b> M85739-1: 1130878 .....	8
<b>3.2:</b> M85739-2: 1130878UF .....	13
<b>3.3:</b> M85739-3: 1130881 .....	14
<b>3.4:</b> M85739-4: 1130881UF .....	19
<b>3.5:</b> M85739-5: 1130882 .....	20
<b>3.6:</b> M85739-6: 1130882UF .....	25
<b>3.7:</b> M85739-7: 1130883 .....	26
<b>3.8:</b> M85739-8: 1130883UF .....	31
<b>3.9:</b> M85739-9: 1130885 .....	32
<b>3.10:</b> M85739-10: 1130885UF .....	37
<b>3.11:</b> M85739-11: 1130886 .....	38
<b>3.12:</b> M85739-12: 1130886UF .....	43
<b>3.13:</b> M85739-13: 1130887 .....	44
<b>3.14:</b> M85739-14: 1130887UF .....	49
<b>3.15:</b> M85739-15: 1130888 .....	50
<b>3.16:</b> M85739-16: 1130888UF .....	55
<b>3.17:</b> M85739-17: 1130889 .....	56
<b>Section 4: Misc. Forms .....</b>	<b>59</b>
<b>4.1:</b> Certification Exceptions .....	60
<b>4.2:</b> Chain of Custody .....	61
<b>4.3:</b> RCP Form .....	64
<b>4.4:</b> Sample Tracking Chronicle .....	65
<b>Section 5: GC/MS Volatiles - QC Data Summaries .....</b>	<b>68</b>
<b>5.1:</b> Method Blank Summary .....	69
<b>5.2:</b> Blank Spike Summary .....	72
<b>5.3:</b> Matrix Spike/Matrix Spike Duplicate Summary .....	75
<b>5.4:</b> Internal Standard Area Summaries .....	78
<b>5.5:</b> Surrogate Recovery Summaries .....	79
<b>Section 6: GC Semi-volatiles - QC Data Summaries .....</b>	<b>80</b>
<b>6.1:</b> Method Blank Summary .....	81
<b>6.2:</b> Blank Spike Summary .....	83
<b>6.3:</b> Matrix Spike/Matrix Spike Duplicate Summary .....	85
<b>6.4:</b> Surrogate Recovery Summaries .....	87
<b>Section 7: Metals Analysis - QC Data Summaries .....</b>	<b>89</b>
<b>7.1:</b> Prep QC MP14096: As,Ba,Cd,Cr,Cu,Pb,Ni,Se,Ag,Zn .....	90
<b>7.2:</b> Prep QC MP14104: Hg .....	98



Sample Summary

Loureiro Eng. Associates

Job No: M85739

UTC: 2009 Quarterly GW-Willow Pond  
Project No: 88UT907

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
M85739-1	09/10/09	09:30 RZ	09/10/09	AQ	Ground Water	1130878
M85739-2	09/10/09	09:30 RZ	09/10/09	AQ	Ground Water	1130878UF
M85739-3	09/10/09	11:40 RZ	09/10/09	AQ	Ground Water	1130881
M85739-4	09/10/09	11:40 RZ	09/10/09	AQ	Ground Water	1130881UF
M85739-5	09/10/09	13:05 RZ	09/10/09	AQ	Ground Water	1130882
M85739-6	09/10/09	13:05 RZ	09/10/09	AQ	Ground Water	1130882UF
M85739-7	09/10/09	14:45 RZ	09/10/09	AQ	Ground Water	1130883
M85739-8	09/10/09	14:45 RZ	09/10/09	AQ	Ground Water	1130883UF
M85739-9	09/10/09	09:24 HG	09/10/09	AQ	Ground Water	1130885
M85739-10	09/10/09	09:24 HG	09/10/09	AQ	Ground Water	1130885UF
M85739-11	09/10/09	10:56 HG	09/10/09	AQ	Ground Water	1130886
M85739-12	09/10/09	10:56 HG	09/10/09	AQ	Ground Water	1130886UF
M85739-13	09/10/09	13:11 HG	09/10/09	AQ	Ground Water	1130887



Sample Summary  
(continued)

Loureiro Eng. Associates

Job No: M85739

UTC: 2009 Quarterly GW-Willow Pond  
Project No: 88UT907

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
M85739-14	09/10/09	13:11 HG	09/10/09	AQ	Ground Water	1130887UF
M85739-15	09/10/09	15:14 HG	09/10/09	AQ	Ground Water	1130888
M85739-16	09/10/09	15:14 HG	09/10/09	AQ	Ground Water	1130888UF
M85739-17	09/10/09	14:00 HG	09/10/09	AQ	Ground Water	1130889

## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Loureiro Eng. Associates

**Job No** M85739

**Site:** UTC: 2009 Quarterly GW-Willow Pond

**Report Date** 9/22/2009 3:36:18 PM

17 Sample(s) were collected on 09/10/2009 and were received at Accutest on 09/10/2009 properly preserved, at 1.9 Deg. C and intact. These Samples received an Accutest job number of M85739. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### Volatiles by GCMS By Method SW846 8260B

<b>Matrix</b> AQ	<b>Batch ID:</b> MSN1361
------------------	--------------------------

- All samples were analyzed within the recommended method holding time.
- Sample(s) M85748-18MS, M85748-18MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- BS, MS, MSD Recovery(s) for Isopropylbenzene are outside control limits. Blank Spike meets program technical requirements.
- MS/MSD Recovery(s) for 1,1,2,2-Tetrachloroethane, Acetone are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Initial calibration standard MSN1359-ICC1359 for 2,2-dichloropropane is employed quadratic regression

Initial calibration verification standard MSN1359-ICV1359 for dichlorodifluoromethane exceed 35% Difference.

- Continuing calibration check standard for isopropylbenzene exceed 30% Difference. This check standard met RCP criteria.

### Extractables by GC By Method CT-ETPH 7/06

<b>Matrix</b> AQ	<b>Batch ID:</b> OP19479
------------------	--------------------------

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M85833-2MS, M85833-2MSD were used as the QC samples indicated.

### Extractables by GC By Method SW846 8082

<b>Matrix</b> AQ	<b>Batch ID:</b> OP19488
------------------	--------------------------

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) M85833-10MS, M85833-10MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

**Metals By Method SW846 6010B****Matrix** AQ**Batch ID:** MP14096

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M85739-2DUP, M85739-2MS, M85739-2SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Cadmium, Nickel, Zinc are outside control limits for sample MP14096-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- Only selected metals requested.

**Metals By Method SW846 7470A****Matrix** AQ**Batch ID:** MP14104

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M85739-2DUP, M85739-2MS were used as the QC samples for metals.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety. The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report (M85739).



## Sample Results

## Report of Analysis

## Report of Analysis

<b>Client Sample ID:</b>	1130878		
<b>Lab Sample ID:</b>	M85739-1	<b>Date Sampled:</b>	09/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	09/10/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N36497.D	1	09/16/09	WC	n/a	n/a	MSN1361
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	2.1	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1130878	<b>Date Sampled:</b>	09/10/09
<b>Lab Sample ID:</b>	M85739-1	<b>Date Received:</b>	09/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



Report of Analysis

<b>Client Sample ID:</b>	1130878		
<b>Lab Sample ID:</b>	M85739-1	<b>Date Sampled:</b>	09/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	09/10/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	94%		70-130%
460-00-4	4-Bromofluorobenzene	98%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	1130878						
<b>Lab Sample ID:</b>	M85739-1				<b>Date Sampled:</b>	09/10/09	
<b>Matrix:</b>	AQ - Ground Water				<b>Date Received:</b>	09/10/09	
<b>Method:</b>	CT-ETPH 7/06 SW846 3510C				<b>Percent Solids:</b>	n/a	
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC31832.D	1	09/17/09	WZ	09/15/09	OP19479	GBC1671
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	0.106	0.080	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
3386-33-2	1-Chlorooctadecane	70%		50-149%	

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1130878						
<b>Lab Sample ID:</b>	M85739-1					<b>Date Sampled:</b>	09/10/09
<b>Matrix:</b>	AQ - Ground Water					<b>Date Received:</b>	09/10/09
<b>Method:</b>	SW846 8082 SW846 3510C					<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF70233.D	1	09/17/09	CZ	09/16/09	OP19488	GEF3230
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	76%		30-150%
877-09-8	Tetrachloro-m-xylene	88%		30-150%
2051-24-3	Decachlorobiphenyl	87%		30-150%
2051-24-3	Decachlorobiphenyl	86%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1130878UF**Lab Sample ID:** M85739-2**Matrix:** AQ - Ground Water**Date Sampled:** 09/10/09**Date Received:** 09/10/09**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond**Total Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Barium	< 200	200	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 4.0	4.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Copper	< 25	25	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	09/15/09	09/15/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>4</sup>
Nickel	< 40	40	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA10953

(2) Instrument QC Batch: MA10962

(3) Prep QC Batch: MP14096

(4) Prep QC Batch: MP14104

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1130881		
<b>Lab Sample ID:</b>	M85739-3	<b>Date Sampled:</b>	09/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	09/10/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N36498.D	1	09/16/09	WC	n/a	n/a	MSN1361
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1130881	<b>Date Sampled:</b>	09/10/09
<b>Lab Sample ID:</b>	M85739-3	<b>Date Received:</b>	09/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1130881	<b>Date Sampled:</b>	09/10/09
<b>Lab Sample ID:</b>	M85739-3	<b>Date Received:</b>	09/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	92%		70-130%
460-00-4	4-Bromofluorobenzene	97%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1130881  
**Lab Sample ID:** M85739-3  
**Matrix:** AQ - Ground Water  
**Method:** CT-ETPH 7/06 SW846 3510C  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Date Sampled:** 09/10/09  
**Date Received:** 09/10/09  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC31834.D	1	09/17/09	WZ	09/15/09	OP19479	GBC1671
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	ND	0.080	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	61%		50-149%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	1130881	
<b>Lab Sample ID:</b>	M85739-3	<b>Date Sampled:</b> 09/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b> 09/10/09
<b>Method:</b>	SW846 8082 SW846 3510C	<b>Percent Solids:</b> n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF70234.D	1	09/17/09	CZ	09/16/09	OP19488	GEF3230
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	80%		30-150%
877-09-8	Tetrachloro-m-xylene	94%		30-150%
2051-24-3	Decachlorobiphenyl	92%		30-150%
2051-24-3	Decachlorobiphenyl	91%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1130881UF**Lab Sample ID:** M85739-4**Date Sampled:** 09/10/09**Matrix:** AQ - Ground Water**Date Received:** 09/10/09**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond**Total Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Barium	< 200	200	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 4.0	4.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Copper	< 25	25	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	09/15/09	09/15/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>4</sup>
Nickel	< 40	40	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA10953

(2) Instrument QC Batch: MA10962

(3) Prep QC Batch: MP14096

(4) Prep QC Batch: MP14104

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1130882	<b>Date Sampled:</b>	09/10/09
<b>Lab Sample ID:</b>	M85739-5	<b>Date Received:</b>	09/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N36499.D	1	09/16/09	WC	n/a	n/a	MSN1361
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	1.9	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1130882	<b>Date Sampled:</b>	09/10/09
<b>Lab Sample ID:</b>	M85739-5	<b>Date Received:</b>	09/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1130882	<b>Date Sampled:</b>	09/10/09
<b>Lab Sample ID:</b>	M85739-5	<b>Date Received:</b>	09/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	92%		70-130%
460-00-4	4-Bromofluorobenzene	96%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1130882  
**Lab Sample ID:** M85739-5  
**Matrix:** AQ - Ground Water  
**Method:** CT-ETPH 7/06 SW846 3510C  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Date Sampled:** 09/10/09  
**Date Received:** 09/10/09  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC31836.D	1	09/17/09	WZ	09/15/09	OP19479	GBC1671
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	ND	0.080	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
3386-33-2	1-Chlorooctadecane	72%		50-149%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1130882  
**Lab Sample ID:** M85739-5  
**Matrix:** AQ - Ground Water  
**Method:** SW846 8082 SW846 3510C  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Date Sampled:** 09/10/09

**Date Received:** 09/10/09

**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF70235.D	1	09/17/09	CZ	09/16/09	OP19488	GEF3230
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	84%		30-150%
877-09-8	Tetrachloro-m-xylene	87%		30-150%
2051-24-3	Decachlorobiphenyl	83%		30-150%
2051-24-3	Decachlorobiphenyl	83%		30-150%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1130882UF**Lab Sample ID:** M85739-6**Matrix:** AQ - Ground Water**Date Sampled:** 09/10/09**Date Received:** 09/10/09**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond**Total Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Barium	< 200	200	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 4.0	4.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Copper	< 25	25	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	09/15/09	09/15/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>4</sup>
Nickel	< 40	40	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA10953

(2) Instrument QC Batch: MA10962

(3) Prep QC Batch: MP14096

(4) Prep QC Batch: MP14104

RL = Reporting Limit



## Report of Analysis

<b>Client Sample ID:</b>	1130883		
<b>Lab Sample ID:</b>	M85739-7	<b>Date Sampled:</b>	09/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	09/10/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N36500.D	1	09/16/09	WC	n/a	n/a	MSN1361
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1130883	<b>Date Sampled:</b>	09/10/09
<b>Lab Sample ID:</b>	M85739-7	<b>Date Received:</b>	09/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	1.2	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	1130883		
<b>Lab Sample ID:</b>	M85739-7	<b>Date Sampled:</b>	09/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	09/10/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	93%		70-130%
460-00-4	4-Bromofluorobenzene	95%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1130883						
<b>Lab Sample ID:</b>	M85739-7					<b>Date Sampled:</b>	09/10/09
<b>Matrix:</b>	AQ - Ground Water					<b>Date Received:</b>	09/10/09
<b>Method:</b>	CT-ETPH 7/06 SW846 3510C					<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC31838.D	1	09/17/09	WZ	09/15/09	OP19479	GBC1671
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	0.222	0.080	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
3386-33-2	1-Chlorooctadecane	71%		50-149%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1130883						
<b>Lab Sample ID:</b>	M85739-7					<b>Date Sampled:</b>	09/10/09
<b>Matrix:</b>	AQ - Ground Water					<b>Date Received:</b>	09/10/09
<b>Method:</b>	SW846 8082 SW846 3510C					<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF70237.D	1	09/18/09	CZ	09/16/09	OP19488	GEF3230
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	92%		30-150%
877-09-8	Tetrachloro-m-xylene	97%		30-150%
2051-24-3	Decachlorobiphenyl	69%		30-150%
2051-24-3	Decachlorobiphenyl	73%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 1130883UF

Lab Sample ID: M85739-8

Matrix: AQ - Ground Water

Date Sampled: 09/10/09

Date Received: 09/10/09

Percent Solids: n/a

Project: UTC: 2009 Quarterly GW-Willow Pond

## Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	11.6	4.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Barium	< 200	200	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 4.0	4.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Copper	< 25	25	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	09/15/09	09/15/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>4</sup>
Nickel	< 40	40	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA10953

(2) Instrument QC Batch: MA10962

(3) Prep QC Batch: MP14096

(4) Prep QC Batch: MP14104

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1130885		
<b>Lab Sample ID:</b>	M85739-9	<b>Date Sampled:</b>	09/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	09/10/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N36501.D	1	09/16/09	WC	n/a	n/a	MSN1361
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1130885	<b>Date Sampled:</b>	09/10/09
<b>Lab Sample ID:</b>	M85739-9	<b>Date Received:</b>	09/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	1130885	<b>Date Sampled:</b>	09/10/09
<b>Lab Sample ID:</b>	M85739-9	<b>Date Received:</b>	09/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	92%		70-130%
460-00-4	4-Bromofluorobenzene	96%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1130885  
**Lab Sample ID:** M85739-9  
**Matrix:** AQ - Ground Water  
**Method:** CT-ETPH 7/06 SW846 3510C  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Date Sampled:** 09/10/09  
**Date Received:** 09/10/09  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC31840.D	1	09/17/09	WZ	09/15/09	OP19479	GBC1671
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	ND	0.080	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	71%		50-149%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1130885		
<b>Lab Sample ID:</b>	M85739-9	<b>Date Sampled:</b>	09/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	09/10/09
<b>Method:</b>	SW846 8082 SW846 3510C	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF70238.D	1	09/18/09	CZ	09/16/09	OP19488	GEF3230
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	73%		30-150%
877-09-8	Tetrachloro-m-xylene	84%		30-150%
2051-24-3	Decachlorobiphenyl	75%		30-150%
2051-24-3	Decachlorobiphenyl	79%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1130885UF**Lab Sample ID:** M85739-10**Matrix:** AQ - Ground Water**Date Sampled:** 09/10/09**Date Received:** 09/10/09**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond**Total Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Barium	< 200	200	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 4.0	4.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Copper	< 25	25	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	09/15/09	09/15/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>4</sup>
Nickel	< 40	40	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA10953

(2) Instrument QC Batch: MA10962

(3) Prep QC Batch: MP14096

(4) Prep QC Batch: MP14104

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1130886		
<b>Lab Sample ID:</b>	M85739-11	<b>Date Sampled:</b>	09/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	09/10/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N36502.D	1	09/16/09	WC	n/a	n/a	MSN1361
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.7	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1130886	<b>Date Sampled:</b>	09/10/09
<b>Lab Sample ID:</b>	M85739-11	<b>Date Received:</b>	09/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	1130886	<b>Date Sampled:</b>	09/10/09
<b>Lab Sample ID:</b>	M85739-11	<b>Date Received:</b>	09/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	92%		70-130%
460-00-4	4-Bromofluorobenzene	94%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1130886**Lab Sample ID:** M85739-11**Date Sampled:** 09/10/09**Matrix:** AQ - Ground Water**Date Received:** 09/10/09**Method:** CT-ETPH 7/06 SW846 3510C**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC31844.D	1	09/17/09	WZ	09/15/09	OP19479	GBC1671
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	ND	0.080	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
3386-33-2	1-Chlorooctadecane	80%		50-149%	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

**Client Sample ID:** 1130886**Lab Sample ID:** M85739-11**Date Sampled:** 09/10/09**Matrix:** AQ - Ground Water**Date Received:** 09/10/09**Method:** SW846 8082 SW846 3510C**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF70239.D	1	09/18/09	CZ	09/16/09	OP19488	GEF3230
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	77%		30-150%
877-09-8	Tetrachloro-m-xylene	88%		30-150%
2051-24-3	Decachlorobiphenyl	81%		30-150%
2051-24-3	Decachlorobiphenyl	85%		30-150%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 1130886UF

Lab Sample ID: M85739-12

Matrix: AQ - Ground Water

Date Sampled: 09/10/09

Date Received: 09/10/09

Percent Solids: n/a

Project: UTC: 2009 Quarterly GW-Willow Pond

## Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Barium	< 200	200	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 4.0	4.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Copper	< 25	25	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	09/15/09	09/15/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>4</sup>
Nickel	< 40	40	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA10953

(2) Instrument QC Batch: MA10962

(3) Prep QC Batch: MP14096

(4) Prep QC Batch: MP14104

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1130887		
<b>Lab Sample ID:</b>	M85739-13	<b>Date Sampled:</b>	09/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	09/10/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N36503.D	1	09/16/09	WC	n/a	n/a	MSN1361
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1130887	<b>Date Sampled:</b>	09/10/09
<b>Lab Sample ID:</b>	M85739-13	<b>Date Received:</b>	09/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1130887	<b>Date Sampled:</b>	09/10/09
<b>Lab Sample ID:</b>	M85739-13	<b>Date Received:</b>	09/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	92%		70-130%
460-00-4	4-Bromofluorobenzene	94%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1130887  
**Lab Sample ID:** M85739-13  
**Matrix:** AQ - Ground Water  
**Method:** CT-ETPH 7/06 SW846 3510C  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Date Sampled:** 09/10/09  
**Date Received:** 09/10/09  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC31846.D	1	09/17/09	WZ	09/15/09	OP19479	GBC1671
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	ND	0.080	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
3386-33-2	1-Chlorooctadecane	78%		50-149%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1130887		
<b>Lab Sample ID:</b>	M85739-13	<b>Date Sampled:</b>	09/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	09/10/09
<b>Method:</b>	SW846 8082 SW846 3510C	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF70240.D	1	09/18/09	CZ	09/16/09	OP19488	GEF3230
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	90%		30-150%
877-09-8	Tetrachloro-m-xylene	88%		30-150%
2051-24-3	Decachlorobiphenyl	71%		30-150%
2051-24-3	Decachlorobiphenyl	74%		30-150%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1130887UF**Lab Sample ID:** M85739-14**Matrix:** AQ - Ground Water**Date Sampled:** 09/10/09**Date Received:** 09/10/09**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond**Total Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Barium	< 200	200	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 4.0	4.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Copper	< 25	25	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	09/15/09	09/15/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>4</sup>
Nickel	< 40	40	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA10953

(2) Instrument QC Batch: MA10962

(3) Prep QC Batch: MP14096

(4) Prep QC Batch: MP14104

RL = Reporting Limit



## Report of Analysis

<b>Client Sample ID:</b>	1130888		
<b>Lab Sample ID:</b>	M85739-15	<b>Date Sampled:</b>	09/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	09/10/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N36504.D	1	09/16/09	WC	n/a	n/a	MSN1361
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 1130888

Lab Sample ID: M85739-15

Date Sampled: 09/10/09

Matrix: AQ - Ground Water

Date Received: 09/10/09

Method: SW846 8260B

Percent Solids: n/a

Project: UTC: 2009 Quarterly GW-Willow Pond

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	1130888		
<b>Lab Sample ID:</b>	M85739-15	<b>Date Sampled:</b>	09/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	09/10/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	91%		70-130%
460-00-4	4-Bromofluorobenzene	91%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1130888**Lab Sample ID:** M85739-15**Date Sampled:** 09/10/09**Matrix:** AQ - Ground Water**Date Received:** 09/10/09**Method:** CT-ETPH 7/06 SW846 3510C**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC31848.D	1	09/17/09	WZ	09/15/09	OP19479	GBC1671
Run #2							

	Initial Volume	Final Volume
Run #1	930 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	0.548	0.086	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	79%		50-149%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1130888		
<b>Lab Sample ID:</b>	M85739-15	<b>Date Sampled:</b>	09/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	09/10/09
<b>Method:</b>	SW846 8082 SW846 3510C	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF70241.D	1	09/18/09	CZ	09/16/09	OP19488	GEF3230
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	83%		30-150%
877-09-8	Tetrachloro-m-xylene	80%		30-150%
2051-24-3	Decachlorobiphenyl	65%		30-150%
2051-24-3	Decachlorobiphenyl	66%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 1130888UF

Lab Sample ID: M85739-16

Matrix: AQ - Ground Water

Date Sampled: 09/10/09

Date Received: 09/10/09

Percent Solids: n/a

Project: UTC: 2009 Quarterly GW-Willow Pond

## Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Barium	< 200	200	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 4.0	4.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Copper	< 25	25	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	09/15/09	09/15/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>4</sup>
Nickel	< 40	40	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA10953

(2) Instrument QC Batch: MA10962

(3) Prep QC Batch: MP14096

(4) Prep QC Batch: MP14104

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1130889		
<b>Lab Sample ID:</b>	M85739-17	<b>Date Sampled:</b>	09/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	09/10/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N36505.D	1	09/16/09	WC	n/a	n/a	MSN1361
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1130889	<b>Date Sampled:</b>	09/10/09
<b>Lab Sample ID:</b>	M85739-17	<b>Date Received:</b>	09/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



Report of Analysis

<b>Client Sample ID:</b>	1130889		
<b>Lab Sample ID:</b>	M85739-17	<b>Date Sampled:</b>	09/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	09/10/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	93%		70-130%
460-00-4	4-Bromofluorobenzene	95%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound



## Misc. Forms

### Custody Documents and Other Forms

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Includes the following where applicable:

- Certification Exceptions
- Certification Exceptions (CT)
- Chain of Custody
- RCP Form
- Sample Tracking Chronicle

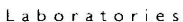
Parameter Certification Exceptions

Job Number: M85739  
Account: LEA Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

The following parameters included in this report are exceptions to NELAC certification.  
The certification status of each is indicated below.

Parameter	CAS#	Method	Mat	Certification Status
Aroclor 1262	37324-23-5	SW846 8082	AQ	Certified by SOP MGC204/GC-ECD
Aroclor 1268	11100-14-4	SW846 8082	AQ	Certified by SOP MGC204/GC-ECD

4.1  
4



495 TECHNOLOGY CENTER WEST • BUILDING ONE  
MARLBOROUGH, MA 01752  
TEL: 508-481-6200 • FAX: 508-481-7753

**ACCUTEST JOB #:**

M85739

**ACCUTEST QUOTE #:**

ECOTEST QUOTE #:  
K8212009-453

CLIENT INFORMATION			FACILITY INFORMATION			ANALYTICAL INFORMATION			MATRIX CODES					
<b>LOUKREIRO ENGINEERING</b> <b>NAME</b> 180 North West Dr. <b>ADDRESS</b> Pl. no. 116 CT <b>CITY, STATE ZIP</b> ROBIN MCKINNEY SEND REPORT TO: <b>PHONE #</b> 860-410-3000			<b>UTC</b> P4 Willowpond Quarterly GW <b>PROJECT NAME</b> P4 EAST HARTFORD <b>LOCATION</b> 88UT907.001 <b>PROJECT NO.</b>  <b>FAX #</b>			VOLS 880908 CT EPA 06068087 Total 17888 + 3			DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OI - OIL LIQ - OTHER LIQUID SOL - OTHER SOLID					
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION			MATRIX	# OF BOTTLES	PRESERVATION						LAB USE ONLY	
		DATE	TIME	SAMPLED BY:			HC	NOH	INQ3	H2SO4	NONE	YES		
-1	11308878	9/10/09	930	RZ		2	X				X	X		
	11308878		930	RZ		4					X	X		
-2	11308878uf		930	RZ		1		X			X	X		
-3	1130881		1140	RZ		2	X				X	X		
	1130881		1140	RZ		4					X	X		
-4	1130881uf		1140	RZ		1		X			X	X		
-5	1130882	(HE)	1305	RZ		2	X				X	X		
	1130882		1305	RZ		4					X	X		
-6	1130882uf		1305	RZ		1		X			X	X		SA, 2BS
-7	1130883		1445	RZ		2	X				X	X		18A
	1130883		1445	RZ		4					X	X		
DATA TURNAROUND INFORMATION			DATA DELIVERABLE INFORMATION			COMMENTS/REMARKS								
<input checked="" type="checkbox"/> 14 DAYS STANDARD <input type="checkbox"/> 7 DAYS RUSH <input type="checkbox"/> 48 HOUR EMERGENCY <input type="checkbox"/> OTHER APPROVED BY: _____ 14 DAY TURNAROUND HARD COPY, EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED			<input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> COMMERCIAL "B" <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> STATE FORMS <input type="checkbox"/> OTHER (SPECIFY) _____			provide CT RCP analytical lists for VOLS + PCBs + provide CT RCP report								
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY														
RELINQUISHED BY SAMPLER:		DATE TIME: 9-10-09		RECEIVED BY: [Signature]		RELINQUISHED BY: [Signature]		DATE TIME: 9-10-09		RECEIVED BY: [Signature]				
RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:				
RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:				
RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		SEAL #		PRESERVE WHEN APPLICABLE		ON ICE				
RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		SEAL #		PRESERVE WHEN APPLICABLE		TEMPERATURE				

## 4.2

Page 1 of 3

CLIENT INFORMATION		FACILITY INFORMATION		ANALYTICAL INFORMATION		MATRIX CODES										
<b>Loureiro Engineering Ass.</b> NAME 100 Northwest Dr. ADDRESS Plainville CT CITY, STATE ZIP ROBIA McKenney SEND REPORT TO: PHONE # 860-410-3000		<b>OTC PAV Willowpond Quarterly GW</b> PROJECT NAME P41 EAST HARTFORD LOCATION BBUT 907.001 PROJECT NO. FAX #		VOCs 82003 CTEPH PCBs 8088 Total 1000 82003 Ct. N. 100		DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OI - OIL LIQ - OTHER LIQUID SOL - OTHER SOLID										
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION			MATRIX	PRESERVATION								LAB USE ONLY		
		DATE	TIME	SAMPLED BY:		# OF BOTTLES	HCl	NaOH	NaNO <sub>2</sub>	NaNO <sub>3</sub>	Na <sub>2</sub> SO <sub>4</sub>	None	Other			
-8	1130885uf	9/10/09	1445	RE		1										
-9	1130885		024	HG		2										
	1130885		024	HG		4										
-10	1130885uf		024	HG		1										
-11	1130886		1056	HG		2										
	1130886		1056	HG		4										
-12	1130886uf		1056	HG		1										
-13	1130887		1311	HG		2										
	1130887		1311	HG		4										
-14	1130887uf		1311	HG		1										
-15	1130888		1514	HG		2										
<b>DATA TURNAROUND INFORMATION</b> <input checked="" type="checkbox"/> 14 DAYS STANDARD APPROVED BY: _____ <input type="checkbox"/> 7 DAYS RUSH <input type="checkbox"/> 48 HOUR EMERGENCY <input type="checkbox"/> OTHER _____ 14 DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED		<b>DATA DELIVERABLE INFORMATION</b> <input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> COMMERCIAL "B" <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> STATE FORMS <input type="checkbox"/> OTHER (SPECIFY) _____		<b>COMMENTS/REMARKS</b> Provide CT RCP analytical lists for VOCs + PCBs + provide CT RCP report												
<b>SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY</b>																
RELINQUISHED BY: 1. <i>[Signature]</i> DATE TIME: 9-10-09		RECEIVED BY: 1. <i>[Signature]</i> DATE TIME:		RELINQUISHED BY: 2. <i>[Signature]</i> DATE TIME:		RECEIVED BY: 2. <i>[Signature]</i> DATE TIME:										
RELINQUISHED BY: 3. <i>[Signature]</i> DATE TIME:		RECEIVED BY: 3. <i>[Signature]</i> DATE TIME:		RELINQUISHED BY: 4. <i>[Signature]</i> DATE TIME:		RECEIVED BY: 4. <i>[Signature]</i> DATE TIME:										
RELINQUISHED BY: 5. <i>[Signature]</i> DATE TIME:		RECEIVED BY: 5. <i>[Signature]</i> DATE TIME:		SEAL # _____ PRESERVE WHERE APPLICABLE <input type="checkbox"/> ON ICE <input type="checkbox"/> TEMPERATURE _____ C												



# Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Laboratory Name: Accutest New England Client: Loureiro Eng. Associates

Project Location: UTC: 2009 Quarterly GW-Willow Pond Project Number: 88UT907

Sampling Date(s): 9/10/2009

Laboratory Sample ID(s): M85739-1, M85739-2, M85739-3, M85739-4, M85739-5, M85739-6, M85739-7, M85739-8, M85739-9, M85739-10, M85739-11, M85739-12, M85739-13, M85739-14, M85739-15, M85739-16, M85739-17

Methods: CT-ETPH 7/06, SW846 6010B, SW846 7470A, 8082, 8260B

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CTDEP method-specific Reasonable Confidence Protocol documents)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1A	Where all the method specified preservation and holding time requirements met?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1B	VPH and EPH methods only: Was the VPH or EPH method conducted without significant modifications (See section 11.3 of respective methods)	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
3	Were samples received at an appropriate temperature (<6° C)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
4	Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
5	a) Were reporting limits specified or referenced on the chain-of-custody?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
	b) Were these reporting limits met?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
7	Are project-specific matrix spikes and laboratory duplicates included in this data set?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

**Note:** For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or #1B is "No", the data package does not meet the requirements for "Reasonable Confidence".

I, the undersigned, attest under pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized

Signature:

Position: Lab Director

Printed Name: Reza Tand  
Accutest New England

Date: 9/22/2009

## Internal Sample Tracking Chronicle

Loureiro Eng. Associates

Job No: M85739

UTC: 2009 Quarterly GW-Willow Pond

Project No: 88UT907

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M85739-1 1130878	Collected: 10-SEP-09 09:30	By: RZ	Received: 10-SEP-09 By: JB			
M85739-1	SW846 8260B	16-SEP-09 00:44	WC			V8260RCP
M85739-1	CT-ETPH 7/06	17-SEP-09 02:22	WZ	15-SEP-09	MEW	BCTTPH
M85739-1	SW846 8082	17-SEP-09 22:15	CZ	16-SEP-09	FG	P8082RCP
M85739-2 1130878UF	Collected: 10-SEP-09 09:30	By: RZ	Received: 10-SEP-09 By: JB			
M85739-2	SW846 7470A	15-SEP-09 13:12	MA	15-SEP-09	MA	HG
M85739-2	SW846 6010B	16-SEP-09 16:47	PY	14-SEP-09	EAL	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M85739-3 1130881	Collected: 10-SEP-09 11:40	By: RZ	Received: 10-SEP-09 By: JB			
M85739-3	SW846 8260B	16-SEP-09 01:12	WC			V8260RCP
M85739-3	CT-ETPH 7/06	17-SEP-09 03:01	WZ	15-SEP-09	MEW	BCTTPH
M85739-3	SW846 8082	17-SEP-09 22:59	CZ	16-SEP-09	FG	P8082RCP
M85739-4 1130881UF	Collected: 10-SEP-09 11:40	By: RZ	Received: 10-SEP-09 By: JB			
M85739-4	SW846 7470A	15-SEP-09 13:17	MA	15-SEP-09	MA	HG
M85739-4	SW846 6010B	16-SEP-09 17:13	PY	14-SEP-09	EAL	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M85739-5 1130882	Collected: 10-SEP-09 13:05	By: RZ	Received: 10-SEP-09 By: JB			
M85739-5	SW846 8260B	16-SEP-09 01:41	WC			V8260RCP
M85739-5	CT-ETPH 7/06	17-SEP-09 03:41	WZ	15-SEP-09	MEW	BCTTPH
M85739-5	SW846 8082	17-SEP-09 23:28	CZ	16-SEP-09	FG	P8082RCP
M85739-6 1130882UF	Collected: 10-SEP-09 13:05	By: RZ	Received: 10-SEP-09 By: JB			
M85739-6	SW846 7470A	15-SEP-09 13:19	MA	15-SEP-09	MA	HG



## Internal Sample Tracking Chronicle

Loureiro Eng. Associates

Job No: M85739

UTC: 2009 Quarterly GW-Willow Pond  
Project No: 88UT907

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M85739-6	SW846 6010B	16-SEP-09 17:17	PY	14-SEP-09	EAL	AG,AS,BA,CD,CR,CU,NI,PB,SE,ZN
M85739-7 Collected: 10-SEP-09 14:45 By: RZ Received: 10-SEP-09 By: JB 1130883						
M85739-7	SW846 8260B	16-SEP-09 02:09	WC			V8260RCP
M85739-7	CT-ETPH 7/06	17-SEP-09 04:20	WZ	15-SEP-09	MEW	BCTTPH
M85739-7	SW846 8082	18-SEP-09 00:42	CZ	16-SEP-09	FG	P8082RCP
M85739-8 Collected: 10-SEP-09 14:45 By: RZ Received: 10-SEP-09 By: JB 1130883UF						
M85739-8	SW846 7470A	15-SEP-09 13:21	MA	15-SEP-09	MA	HG
M85739-8	SW846 6010B	16-SEP-09 17:22	PY	14-SEP-09	EAL	AG,AS,BA,CD,CR,CU,NI,PB,SE,ZN
M85739-9 Collected: 10-SEP-09 09:24 By: HG Received: 10-SEP-09 By: JB 1130885						
M85739-9	SW846 8260B	16-SEP-09 02:38	WC			V8260RCP
M85739-9	CT-ETPH 7/06	17-SEP-09 05:00	WZ	15-SEP-09	MEW	BCTTPH
M85739-9	SW846 8082	18-SEP-09 01:27	CZ	16-SEP-09	FG	P8082RCP
M85739-10 Collected: 10-SEP-09 09:24 By: HG Received: 10-SEP-09 By: JB 1130885UF						
M85739-10	SW846 7470A	15-SEP-09 13:28	MA	15-SEP-09	MA	HG
M85739-10	SW846 6010B	16-SEP-09 17:26	PY	14-SEP-09	EAL	AG,AS,BA,CD,CR,CU,NI,PB,SE,ZN
M85739-11 Collected: 10-SEP-09 10:56 By: HG Received: 10-SEP-09 By: JB 1130886						
M85739-11	SW846 8260B	16-SEP-09 03:06	WC			V8260RCP
M85739-11	CT-ETPH 7/06	17-SEP-09 06:19	WZ	15-SEP-09	MEW	BCTTPH
M85739-11	SW846 8082	18-SEP-09 01:56	CZ	16-SEP-09	FG	P8082RCP

## Internal Sample Tracking Chronicle

Loureiro Eng. Associates

Job No: M85739

UTC: 2009 Quarterly GW-Willow Pond  
Project No: 88UT907

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M85739-12 Collected: 10-SEP-09 10:56 By: HG Received: 10-SEP-09 By: JB 1130886UF						
M85739-12	SW846 7470A	15-SEP-09 13:31	MA	15-SEP-09	MA	HG
M85739-12	SW846 6010B	16-SEP-09 17:31	PY	14-SEP-09	EAL	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M85739-13 Collected: 10-SEP-09 13:11 By: HG Received: 10-SEP-09 By: JB 1130887						
M85739-13	SW846 8260B	16-SEP-09 03:35	WC			V8260RCP
M85739-13	CT-ETPH 7/06	17-SEP-09 06:58	WZ	15-SEP-09	MEW	BCTTPH
M85739-13	SW846 8082	18-SEP-09 02:41	CZ	16-SEP-09	FG	P8082RCP
M85739-14 Collected: 10-SEP-09 13:11 By: HG Received: 10-SEP-09 By: JB 1130887UF						
M85739-14	SW846 7470A	15-SEP-09 13:33	MA	15-SEP-09	MA	HG
M85739-14	SW846 6010B	16-SEP-09 17:35	PY	14-SEP-09	EAL	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M85739-15 Collected: 10-SEP-09 15:14 By: HG Received: 10-SEP-09 By: JB 1130888						
M85739-15	SW846 8260B	16-SEP-09 04:03	WC			V8260RCP
M85739-15	CT-ETPH 7/06	17-SEP-09 07:38	WZ	15-SEP-09	MEW	BCTTPH
M85739-15	SW846 8082	18-SEP-09 03:10	CZ	16-SEP-09	FG	P8082RCP
M85739-16 Collected: 10-SEP-09 15:14 By: HG Received: 10-SEP-09 By: JB 1130888UF						
M85739-16	SW846 7470A	15-SEP-09 13:35	MA	15-SEP-09	MA	HG
M85739-16	SW846 6010B	16-SEP-09 17:39	PY	14-SEP-09	EAL	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M85739-17 Collected: 10-SEP-09 14:00 By: HG Received: 10-SEP-09 By: JB 1130889						
M85739-17	SW846 8260B	16-SEP-09 04:32	WC			V8260RCP



## GC/MS Volatiles

5

### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

## Method Blank Summary

Page 1 of 3

**Job Number:** M85739**Account:** LEA Loureiro Eng. Associates**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1361-MB	N36485.D	1	09/15/09	WC	n/a	n/a	MSN1361

**The QC reported here applies to the following samples:****Method:** SW846 8260B

M85739-1, M85739-3, M85739-5, M85739-7, M85739-9, M85739-11, M85739-13, M85739-15, M85739-17

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	

## Method Blank Summary

Page 2 of 3

**Job Number:** M85739

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1361-MB	N36485.D	1	09/15/09	WC	n/a	n/a	MSN1361

The QC reported here applies to the following samples:

Method: SW846 8260B

M85739-1, M85739-3, M85739-5, M85739-7, M85739-9, M85739-11, M85739-13, M85739-15, M85739-17

CAS No.	Compound	Result	RL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

Method Blank Summary

Job Number: M85739  
Account: LEA Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1361-MB	N36485.D	1	09/15/09	WC	n/a	n/a	MSN1361

The QC reported here applies to the following samples: Method: SW846 8260B

M85739-1, M85739-3, M85739-5, M85739-7, M85739-9, M85739-11, M85739-13, M85739-15, M85739-17

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	90% 70-130%
2037-26-5	Toluene-D8	93% 70-130%
460-00-4	4-Bromofluorobenzene	98% 70-130%

## Blank Spike Summary

Page 1 of 3

**Job Number:** M85739

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1361-BS	N36482A.D	1	09/15/09	WC	n/a	n/a	MSN1361

The QC reported here applies to the following samples:

Method: SW846 8260B

M85739-1, M85739-3, M85739-5, M85739-7, M85739-9, M85739-11, M85739-13, M85739-15, M85739-17

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	42.9	86	70-130
107-13-1	Acrylonitrile	250	215	86	70-130
71-43-2	Benzene	50	46.8	94	70-130
108-86-1	Bromobenzene	50	60.4	121	70-130
75-27-4	Bromodichloromethane	50	49.2	98	70-130
75-25-2	Bromoform	50	49.1	98	70-130
74-83-9	Bromomethane	50	44.5	89	70-130
78-93-3	2-Butanone (MEK)	50	46.6	93	70-130
104-51-8	n-Butylbenzene	50	57.5	115	70-130
135-98-8	sec-Butylbenzene	50	60.6	121	70-130
98-06-6	tert-Butylbenzene	50	63.2	126	70-130
75-15-0	Carbon disulfide	50	43.9	88	70-130
56-23-5	Carbon tetrachloride	50	50.7	101	70-130
108-90-7	Chlorobenzene	50	53.3	107	70-130
75-00-3	Chloroethane	50	42.7	85	70-130
67-66-3	Chloroform	50	41.8	84	70-130
74-87-3	Chloromethane	50	50.3	101	70-130
95-49-8	o-Chlorotoluene	50	61.3	123	70-130
106-43-4	p-Chlorotoluene	50	59.5	119	70-130
96-12-8	1,2-Dibromo-3-chloropropane	50	56.5	113	70-130
124-48-1	Dibromochloromethane	50	58.9	118	70-130
106-93-4	1,2-Dibromoethane	50	54.1	108	70-130
95-50-1	1,2-Dichlorobenzene	50	58.8	118	70-130
541-73-1	1,3-Dichlorobenzene	50	56.7	113	70-130
106-46-7	1,4-Dichlorobenzene	50	62.3	125	70-130
75-71-8	Dichlorodifluoromethane	50	59.3	119	70-130
75-34-3	1,1-Dichloroethane	50	43.9	88	70-130
107-06-2	1,2-Dichloroethane	50	47.8	96	70-130
75-35-4	1,1-Dichloroethene	50	42.4	85	70-130
156-59-2	cis-1,2-Dichloroethene	50	42.5	85	70-130
156-60-5	trans-1,2-Dichloroethene	50	41.1	82	70-130
78-87-5	1,2-Dichloropropane	50	49.0	98	70-130
142-28-9	1,3-Dichloropropane	50	54.6	109	70-130
594-20-7	2,2-Dichloropropane	50	43.2	86	70-130
563-58-6	1,1-Dichloropropene	50	48.9	98	70-130
10061-01-5	cis-1,3-Dichloropropene	50	46.4	93	70-130

## Blank Spike Summary

Page 2 of 3

**Job Number:** M85739**Account:** LEA Loureiro Eng. Associates**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1361-BS	N36482A.D	1	09/15/09	WC	n/a	n/a	MSN1361

**The QC reported here applies to the following samples:****Method:** SW846 8260B

M85739-1, M85739-3, M85739-5, M85739-7, M85739-9, M85739-11, M85739-13, M85739-15, M85739-17

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-02-6	trans-1,3-Dichloropropene	50	48.5	97	70-130
100-41-4	Ethylbenzene	50	55.4	111	70-130
76-13-1	Freon 113	50	46.1	92	70-130
87-68-3	Hexachlorobutadiene	50	61.9	124	70-130
591-78-6	2-Hexanone	50	60.8	122	70-130
98-82-8	Isopropylbenzene	50	72.7	145* a	70-130
99-87-6	p-Isopropyltoluene	50	61.3	123	70-130
1634-04-4	Methyl Tert Butyl Ether	50	44.8	90	70-130
108-10-1	4-Methyl-2-pentanone (MIBK)	50	47.4	95	70-130
74-95-3	Methylene bromide	50	46.9	94	70-130
75-09-2	Methylene chloride	50	42.5	85	70-130
91-20-3	Naphthalene	50	61.0	122	70-130
103-65-1	n-Propylbenzene	50	61.5	123	70-130
100-42-5	Styrene	50	53.7	107	70-130
630-20-6	1,1,1,2-Tetrachloroethane	50	56.3	113	70-130
79-34-5	1,1,2,2-Tetrachloroethane	50	61.4	123	70-130
127-18-4	Tetrachloroethene	50	53.5	107	70-130
109-99-9	Tetrahydrofuran	50	42.8	86	70-130
108-88-3	Toluene	50	47.7	95	70-130
110-57-6	Trans-1,4-Dichloro-2-Butene	50	51.9	104	70-130
87-61-6	1,2,3-Trichlorobenzene	50	58.1	116	70-130
120-82-1	1,2,4-Trichlorobenzene	50	59.9	120	70-130
71-55-6	1,1,1-Trichloroethane	50	43.6	87	70-130
79-00-5	1,1,2-Trichloroethane	50	47.4	95	70-130
79-01-6	Trichloroethene	50	48.3	97	70-130
75-69-4	Trichlorofluoromethane	50	44.2	88	70-130
96-18-4	1,2,3-Trichloropropane	50	55.8	112	70-130
95-63-6	1,2,4-Trimethylbenzene	50	59.7	119	70-130
108-67-8	1,3,5-Trimethylbenzene	50	62.0	124	70-130
75-01-4	Vinyl chloride	50	53.8	108	70-130
	m,p-Xylene	100	109	109	70-130
95-47-6	o-Xylene	50	56.7	113	70-130



## Blank Spike Summary

Page 3 of 3

**Job Number:** M85739

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1361-BS	N36482A.D	1	09/15/09	WC	n/a	n/a	MSN1361

The QC reported here applies to the following samples:

Method: SW846 8260B

M85739-1, M85739-3, M85739-5, M85739-7, M85739-9, M85739-11, M85739-13, M85739-15, M85739-17

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	89%	70-130%
2037-26-5	Toluene-D8	96%	70-130%
460-00-4	4-Bromofluorobenzene	106%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 3

Job Number: M85739

Account: LEA Loureiro Eng. Associates

Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M85748-18MS	N36493.D	5	09/15/09	WC	n/a	n/a	MSN1361
M85748-18MSD	N36494.D	5	09/15/09	WC	n/a	n/a	MSN1361
M85748-18	N36492.D	1	09/15/09	WC	n/a	n/a	MSN1361

The QC reported here applies to the following samples:

Method: SW846 8260B

M85739-1, M85739-3, M85739-5, M85739-7, M85739-9, M85739-11, M85739-13, M85739-15, M85739-17

CAS No.	Compound	M85748-18 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND	250	155	62* a	157	63* a	1	70-130/30
107-13-1	Acrylonitrile	ND	1250	1110	89	1140	91	3	70-130/30
71-43-2	Benzene	ND	250	232	93	232	93	0	70-130/30
108-86-1	Bromobenzene	ND	250	292	117	304	122	4	70-130/30
75-27-4	Bromodichloromethane	ND	250	251	100	249	100	1	70-130/30
75-25-2	Bromoform	ND	250	258	103	262	105	2	70-130/30
74-83-9	Bromomethane	ND	250	203	81	209	84	3	70-130/30
78-93-3	2-Butanone (MEK)	ND	250	191	76	197	79	3	70-130/30
104-51-8	n-Butylbenzene	ND	250	276	110	297	119	7	70-130/30
135-98-8	sec-Butylbenzene	ND	250	295	118	312	125	6	70-130/30
98-06-6	tert-Butylbenzene	ND	250	308	123	318	127	3	70-130/30
75-15-0	Carbon disulfide	ND	250	220	88	219	88	0	70-130/30
56-23-5	Carbon tetrachloride	ND	250	244	98	247	99	1	70-130/30
108-90-7	Chlorobenzene	ND	250	262	105	266	106	2	70-130/30
75-00-3	Chloroethane	ND	250	216	86	210	84	3	70-130/30
67-66-3	Chloroform	ND	250	210	84	210	84	0	70-130/30
74-87-3	Chloromethane	ND	250	247	99	254	102	3	70-130/30
95-49-8	o-Chlorotoluene	ND	250	303	121	312	125	3	70-130/30
106-43-4	p-Chlorotoluene	ND	250	286	114	298	119	4	70-130/30
96-12-8	1,2-Dibromo-3-chloropropane	ND	250	304	122	311	124	2	70-130/30
124-48-1	Dibromochloromethane	ND	250	300	120	302	121	1	70-130/30
106-93-4	1,2-Dibromoethane	ND	250	284	114	285	114	0	70-130/30
95-50-1	1,2-Dichlorobenzene	ND	250	293	117	303	121	3	70-130/30
541-73-1	1,3-Dichlorobenzene	ND	250	278	111	290	116	4	70-130/30
106-46-7	1,4-Dichlorobenzene	ND	250	302	121	319	128	5	70-130/30
75-71-8	Dichlorodifluoromethane	ND	250	285	114	285	114	0	70-130/30
75-34-3	1,1-Dichloroethane	ND	250	219	88	218	87	0	70-130/30
107-06-2	1,2-Dichloroethane	ND	250	240	96	239	96	0	70-130/30
75-35-4	1,1-Dichloroethene	ND	250	210	84	210	84	0	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND	250	208	83	213	85	2	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND	250	202	81	203	81	0	70-130/30
78-87-5	1,2-Dichloropropane	ND	250	247	99	247	99	0	70-130/30
142-28-9	1,3-Dichloropropane	ND	250	286	114	286	114	0	70-130/30
594-20-7	2,2-Dichloropropane	ND	250	200	80	194	78	3	70-130/30
563-58-6	1,1-Dichloropropene	ND	250	236	94	232	93	2	70-130/30
10061-01-5	cis-1,3-Dichloropropene	ND	250	231	92	232	93	0	70-130/30

# Matrix Spike/Matrix Spike Duplicate Summary

Page 2 of 3

**Job Number:** M85739

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M85748-18MS	N36493.D	5	09/15/09	WC	n/a	n/a	MSN1361
M85748-18MSD	N36494.D	5	09/15/09	WC	n/a	n/a	MSN1361
M85748-18	N36492.D	1	09/15/09	WC	n/a	n/a	MSN1361

The QC reported here applies to the following samples:

Method: SW846 8260B

M85739-1, M85739-3, M85739-5, M85739-7, M85739-9, M85739-11, M85739-13, M85739-15, M85739-17

CAS No.	Compound	M85748-18 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	ND	250	245	98	244	98	0	70-130/30
100-41-4	Ethylbenzene	ND	250	272	109	278	111	2	70-130/30
76-13-1	Freon 113	ND	250	221	88	218	87	1	70-130/30
87-68-3	Hexachlorobutadiene	ND	250	292	117	305	122	4	70-130/30
591-78-6	2-Hexanone	ND	250	269	108	292	117	8	70-130/30
98-82-8	Isopropylbenzene	ND	250	357	143* b	369	148* b	3	70-130/30
99-87-6	p-Isopropyltoluene	ND	250	300	120	315	126	5	70-130/30
1634-04-4	Methyl Tert Butyl Ether	1.3	250	227	90	229	91	1	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	250	253	101	262	105	3	70-130/30
74-95-3	Methylene bromide	ND	250	248	99	245	98	1	70-130/30
75-09-2	Methylene chloride	ND	250	215	86	216	86	0	70-130/30
91-20-3	Naphthalene	ND	250	295	118	322	129	9	70-130/30
103-65-1	n-Propylbenzene	ND	250	294	118	307	123	4	70-130/30
100-42-5	Styrene	ND	250	259	104	270	108	4	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND	250	283	113	292	117	3	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND	250	334	134* a	337	135* a	1	70-130/30
127-18-4	Tetrachloroethene	ND	250	258	103	262	105	2	70-130/30
109-99-9	Tetrahydrofuran	ND	250	221	88	232	93	5	70-130/30
108-88-3	Toluene	ND	250	235	94	234	94	0	70-130/30
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	250	265	106	276	110	4	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND	250	277	111	298	119	7	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND	250	291	116	308	123	6	70-130/30
71-55-6	1,1,1-Trichloroethane	ND	250	217	87	218	87	0	70-130/30
79-00-5	1,1,2-Trichloroethane	ND	250	247	99	244	98	1	70-130/30
79-01-6	Trichloroethene	ND	250	241	96	240	96	0	70-130/30
75-69-4	Trichlorofluoromethane	ND	250	212	85	214	86	1	70-130/30
96-18-4	1,2,3-Trichloropropane	ND	250	290	116	304	122	5	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND	250	299	120	307	123	3	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND	250	309	124	315	126	2	70-130/30
75-01-4	Vinyl chloride	ND	250	277	111	270	108	3	70-130/30
	m,p-Xylene	ND	500	536	107	539	108	1	70-130/30
95-47-6	o-Xylene	ND	250	285	114	287	115	1	70-130/30

## Matrix Spike/Matrix Spike Duplicate Summary

Page 3 of 3

**Job Number:** M85739

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M85748-18MS	N36493.D	5	09/15/09	WC	n/a	n/a	MSN1361
M85748-18MSD	N36494.D	5	09/15/09	WC	n/a	n/a	MSN1361
M85748-18	N36492.D	1	09/15/09	WC	n/a	n/a	MSN1361

The QC reported here applies to the following samples:

Method: SW846 8260B

M85739-1, M85739-3, M85739-5, M85739-7, M85739-9, M85739-11, M85739-13, M85739-15, M85739-17

CAS No.	Surrogate Recoveries	MS	MSD	M85748-18	Limits
1868-53-7	Dibromofluoromethane	92%	89%	91%	70-130%
2037-26-5	Toluene-D8	97%	97%	93%	70-130%
460-00-4	4-Bromofluorobenzene	106%	105%	95%	70-130%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

(b) Outside control limits. Blank Spike meets program technical requirements.

# Volatile Internal Standard Area Summary

Page 1 of 1

**Job Number:** M85739  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Check Std:** MSN1361-CC1359  
**Lab File ID:** N36482.D  
**Instrument ID:** GCMSN  
**Injection Date:** 09/15/09  
**Injection Time:** 17:36  
**Method:** SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	155299	8.64	279872	9.50	155727	12.75	94595	15.31	97075	6.22
Upper Limit <sup>a</sup>	310598	9.14	559744	10.00	311454	13.25	189190	15.81	194150	6.72
Lower Limit <sup>b</sup>	77650	8.14	139936	9.00	77864	12.25	47298	14.81	48538	5.72

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSN1361-BS	155299	8.64	279872	9.50	155727	12.75	94595	15.31	97075	6.22
MSN1361-MB	148315	8.64	274904	9.50	137553	12.75	86043	15.31	94059	6.22
ZZZZZZ	144836	8.64	263701	9.50	132376	12.75	83446	15.31	92844	6.22
ZZZZZZ	142293	8.64	264591	9.50	130778	12.75	86357	15.31	83698	6.22
ZZZZZZ	142943	8.64	260303	9.50	131254	12.75	84169	15.31	83070	6.22
ZZZZZZ	140677	8.64	259758	9.50	129152	12.75	81698	15.31	95857	6.22
ZZZZZZ	143148	8.64	260041	9.50	131041	12.75	82746	15.31	84902	6.22
ZZZZZZ	143643	8.64	262781	9.50	134495	12.75	83612	15.31	94742	6.22
M85748-18	139993	8.64	258687	9.50	129210	12.75	82729	15.31	86622	6.22
M85748-18MS	143145	8.64	260868	9.50	144845	12.75	89078	15.31	89409	6.22
M85748-18MSD	148971	8.64	271143	9.50	149721	12.75	90892	15.31	97821	6.22
M85739-1	167042	8.64	304180	9.50	154274	12.75	104192	15.31	104724	6.22
M85739-3	161340	8.64	297030	9.50	149172	12.75	97233	15.31	112373	6.22
M85739-5	157220	8.64	290335	9.50	143635	12.75	93888	15.31	107707	6.22
M85739-7	152169	8.64	280043	9.50	137585	12.75	89181	15.31	102158	6.22
M85739-9	145646	8.64	269762	9.50	130987	12.75	83786	15.31	99654	6.22
M85739-11	143728	8.64	263230	9.50	127578	12.75	81617	15.31	93993	6.22
M85739-13	141944	8.64	259592	9.50	125023	12.75	79578	15.31	101154	6.22
M85739-15	140383	8.64	256656	9.50	122093	12.75	80201	15.31	97052	6.22
M85739-17	137182	8.64	252582	9.50	122916	12.75	80653	15.31	90970	6.22

**IS 1** = Pentafluorobenzene  
**IS 2** = 1,4-Difluorobenzene  
**IS 3** = Chlorobenzene-D5  
**IS 4** = 1,4-Dichlorobenzene-d4  
**IS 5** = Tert Butyl Alcohol-D9

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

# Volatile Surrogate Recovery Summary

Page 1 of 1

**Job Number:** M85739

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Method:** SW846 8260B

**Matrix:** AQ

**Samples and QC shown here apply to the above method**

Lab Sample ID	Lab File ID	S1	S2	S3
M85739-1	N36497.D	91.0	94.0	98.0
M85739-3	N36498.D	91.0	92.0	97.0
M85739-5	N36499.D	91.0	92.0	96.0
M85739-7	N36500.D	93.0	93.0	95.0
M85739-9	N36501.D	93.0	92.0	96.0
M85739-11	N36502.D	92.0	92.0	94.0
M85739-13	N36503.D	91.0	92.0	94.0
M85739-15	N36504.D	92.0	91.0	91.0
M85739-17	N36505.D	93.0	93.0	95.0
M85748-18MS	N36493.D	92.0	97.0	106.0
M85748-18MSD	N36494.D	89.0	97.0	105.0
MSN1361-BS	N36482A.D	89.0	96.0	106.0
MSN1361-MB	N36485.D	90.0	93.0	98.0

## Surrogate Compounds

## Recovery Limits

**S1** = Dibromofluoromethane

70-130%

**S2** = Toluene-D8

70-130%

**S3** = 4-Bromofluorobenzene

70-130%



## GC Semi-volatiles

### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries

## Method Blank Summary

Page 1 of 1

**Job Number:** M85739

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19479-MB	BC31802.D	1	09/16/09	WZ	09/15/09	OP19479	GBC1671

The QC reported here applies to the following samples:

Method: CT-ETPH 7/06

M85739-1, M85739-3, M85739-5, M85739-7, M85739-9, M85739-11, M85739-13, M85739-15

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	ND	0.080	mg/l	

CAS No.	Surrogate Recoveries	Limits
3386-33-2	1-Chlorooctadecane	63% 50-149%



## Method Blank Summary

Page 1 of 1

**Job Number:** M85739

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19488-MB	EF70226.D	1	09/17/09	CZ	09/16/09	OP19488	GEF3230

The QC reported here applies to the following samples:

Method: SW846 8082

M85739-1, M85739-3, M85739-5, M85739-7, M85739-9, M85739-11, M85739-13, M85739-15

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	85%	30-150%
877-09-8	Tetrachloro-m-xylene	82%	30-150%
2051-24-3	Decachlorobiphenyl	44%	30-150%
2051-24-3	Decachlorobiphenyl	46%	30-150%

## Blank Spike Summary

Page 1 of 1

**Job Number:** M85739

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19479-BS	BC31804.D	1	09/16/09	WZ	09/15/09	OP19479	GBC1671

The QC reported here applies to the following samples:

Method: CT-ETPH 7/06

M85739-1, M85739-3, M85739-5, M85739-7, M85739-9, M85739-11, M85739-13, M85739-15

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	CT-DRO (C9-C36)	0.7	0.451	64	60-120

CAS No.	Surrogate Recoveries	BSP	Limits
3386-33-2	1-Chlorooctadecane	69%	50-149%

6.2.1

6

## Blank Spike Summary

Page 1 of 1

**Job Number:** M85739

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19488-BS	EF70227.D	1	09/17/09	CZ	09/16/09	OP19488	GEF3230

The QC reported here applies to the following samples:

Method: SW846 8082

M85739-1, M85739-3, M85739-5, M85739-7, M85739-9, M85739-11, M85739-13, M85739-15

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
12674-11-2	Aroclor 1016	2	2.3	115	40-140
11104-28-2	Aroclor 1221		ND		40-140
11141-16-5	Aroclor 1232		ND		40-140
53469-21-9	Aroclor 1242		ND		40-140
12672-29-6	Aroclor 1248		ND		40-140
11097-69-1	Aroclor 1254		ND		40-140
11096-82-5	Aroclor 1260	2	2.0	100	40-140
37324-23-5	Aroclor 1262		ND		40-140
11100-14-4	Aroclor 1268		ND		40-140

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	90%	30-150%
877-09-8	Tetrachloro-m-xylene	89%	30-150%
2051-24-3	Decachlorobiphenyl	51%	30-150%
2051-24-3	Decachlorobiphenyl	50%	30-150%

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

**Job Number:** M85739

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19479-MS	BC31806.D	1	09/16/09	WZ	09/15/09	OP19479	GBC1671
OP19479-MSD	BC31808.D	1	09/16/09	WZ	09/15/09	OP19479	GBC1671
M85833-2	BC31810.D	1	09/16/09	WZ	09/15/09	OP19479	GBC1671

The QC reported here applies to the following samples:

Method: CT-ETPH 7/06

M85739-1, M85739-3, M85739-5, M85739-7, M85739-9, M85739-11, M85739-13, M85739-15

CAS No.	Compound	M85833-2 mg/l	Spike Q mg/l	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	CT-DRO (C9-C36)	ND	0.7	0.480	69	0.492	70	2	50-129/26

CAS No.	Surrogate Recoveries	MS	MSD	M85833-2	Limits
3386-33-2	1-Chlorooctadecane	61%	67%	60%	50-149%

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

**Job Number:** M85739

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19488-MS	EF70228.D	1	09/17/09	CZ	09/16/09	OP19488	GEF3230
OP19488-MSD	EF70229.D	1	09/17/09	CZ	09/16/09	OP19488	GEF3230
M85833-10	EF70230.D	1	09/17/09	CZ	09/16/09	OP19488	GEF3230

The QC reported here applies to the following samples:

Method: SW846 8082

M85739-1, M85739-3, M85739-5, M85739-7, M85739-9, M85739-11, M85739-13, M85739-15

CAS No.	Compound	M85833-10 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	ND	2	2.2	110	2.1	105	5	40-140/50
11104-28-2	Aroclor 1221	ND		ND		ND		nc	40-140/50
11141-16-5	Aroclor 1232	ND		ND		ND		nc	40-140/50
53469-21-9	Aroclor 1242	ND		ND		ND		nc	40-140/50
12672-29-6	Aroclor 1248	ND		ND		ND		nc	40-140/50
11097-69-1	Aroclor 1254	ND		ND		ND		nc	40-140/50
11096-82-5	Aroclor 1260	ND	2	2.1	105	1.9	95	10	40-140/50
37324-23-5	Aroclor 1262	ND		ND		ND		nc	40-140/50
11100-14-4	Aroclor 1268	ND		ND		ND		nc	40-140/50

CAS No.	Surrogate Recoveries	MS	MSD	M85833-10	Limits
877-09-8	Tetrachloro-m-xylene	82%	73%	80%	30-150%
877-09-8	Tetrachloro-m-xylene	82%	84%	89%	30-150%
2051-24-3	Decachlorobiphenyl	45%	47%	48%	30-150%
2051-24-3	Decachlorobiphenyl	46%	48%	46%	30-150%

# Semivolatile Surrogate Recovery Summary

Page 1 of 1

**Job Number:** M85739

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Method:** CT-ETPH 7/06

**Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 <sup>a</sup>
M85739-1	BC31832.D	70.0
M85739-3	BC31834.D	61.0
M85739-5	BC31836.D	72.0
M85739-7	BC31838.D	71.0
M85739-9	BC31840.D	71.0
M85739-11	BC31844.D	80.0
M85739-13	BC31846.D	78.0
M85739-15	BC31848.D	79.0
OP19479-BS	BC31804.D	69.0
OP19479-MB	BC31802.D	63.0
OP19479-MS	BC31806.D	61.0
OP19479-MSD	BC31808.D	67.0

Surrogate Compounds	Recovery Limits
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S1 = 1-Chlorooctadecane	50-149%
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(a) Recovery from GC signal #1

6.4.1

6

# Semivolatile Surrogate Recovery Summary

Page 1 of 1

**Job Number:** M85739

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Method:** SW846 8082

**Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 <sup>a</sup>	S1 <sup>b</sup>	S2 <sup>a</sup>	S2 <sup>b</sup>
M85739-1	EF70233.D	76.0	88.0	87.0	86.0
M85739-3	EF70234.D	80.0	94.0	92.0	91.0
M85739-5	EF70235.D	84.0	87.0	83.0	83.0
M85739-7	EF70237.D	92.0	97.0	69.0	73.0
M85739-9	EF70238.D	73.0	84.0	75.0	79.0
M85739-11	EF70239.D	77.0	88.0	81.0	85.0
M85739-13	EF70240.D	90.0	88.0	71.0	74.0
M85739-15	EF70241.D	83.0	80.0	65.0	66.0
OP19488-BS	EF70227.D	90.0	89.0	51.0	50.0
OP19488-MB	EF70226.D	85.0	82.0	44.0	46.0
OP19488-MS	EF70228.D	82.0	82.0	45.0	46.0
OP19488-MSD	EF70229.D	73.0	84.0	47.0	48.0

## Surrogate Compounds

## Recovery Limits

**S1** = Tetrachloro-m-xylene

30-150%

**S2** = Decachlorobiphenyl

30-150%

(a) Recovery from GC signal #1

(b) Recovery from GC signal #2

6.4.2

6



## Metals Analysis

### QC Data Summaries

---

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries



BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: M85739  
Account: LEA - Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14096  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date: 09/14/09

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	27	40		
Antimony	6.0	1.4	1.6		
Arsenic	10	1	1.8	-0.30	<10
Barium	200	.57	1.1	0.50	<200
Beryllium	4.0	.15	.4		
Boron	100	.65	2.3		
Cadmium	4.0	.24	1.9	0.10	<4.0
Calcium	5000	7.6	15		
Chromium	10	.81	1.1	-0.30	<10
Cobalt	50	.25	.3		
Copper	25	2.2	4	0.80	<25
Gold	50	1.1	4.2		
Iron	100	3.7	13		
Lead	5.0	1.1	2.7	0.70	<5.0
Magnesium	5000	37	77		
Manganese	15	.12	1.1		
Molybdenum	100	.22	.8		
Nickel	40	.24	1.3	0.20	<40
Palladium	50	2.2	4		
Platinum	50	9.3	13		
Potassium	5000	39	46		
Selenium	10	1.9	3.5	1.1	<10
Silicon	100	8.9	36		
Silver	5.0	.54	1.3	0.10	<5.0
Sodium	5000	61	160		
Strontium	10	.24	.3		
Thallium	10	1.2	1.3		
Tin	100	.65	1.3		
Titanium	50	.74	.8		
Tungsten	100	5.6	8		
Vanadium	30	.68	1.6		
Zinc	20	.74	1.5	1.1	<20

Associated samples MP14096: M85739-2, M85739-4, M85739-6, M85739-8, M85739-10, M85739-12, M85739-14, M85739-16

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: M85739  
Account: LEA - Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14096  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date:

Metal

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

7.1.1

7

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: M85739  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14096  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 09/14/09 09/14/09

Metal	M85739-2 Original MS		Spikelot MPICP	% Rec	QC Limits	M85739-2 Original DUP		RPD	QC Limits
Aluminum	anr								
Antimony									
Arsenic	0.0	539	500	107.8	75-125	0.0	0.0	NC	0-20
Barium	118	2200	2000	104.1	75-125	118	117	0.9	0-20
Beryllium									
Boron	anr								
Cadmium	0.30	543	500	108.5	75-125	0.30	0.30	0.0	0-20
Calcium									
Chromium	0.0	506	500	101.2	75-125	0.0	0.0	NC	0-20
Cobalt	anr								
Copper	0.0	521	500	104.2	75-125	0.0	0.0	NC	0-20
Gold									
Iron	anr								
Lead	0.0	1000	1000	100.0	75-125	0.0	0.0	NC	0-20
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	2.0	502	500	100.0	75-125	2.0	1.9	5.1	0-20
Palladium									
Platinum									
Potassium									
Selenium	0.0	550	500	110.0	75-125	0.0	0.0	NC	0-20
Silicon									
Silver	0.0	213	200	106.5	75-125	0.0	0.0	NC	0-20
Sodium									
Strontium									
Thallium									
Tin	anr								
Titanium	anr								
Tungsten									
Vanadium									
Zinc	16.8	537	500	104.0	75-125	16.8	15.9	5.5	0-20

Associated samples MP14096: M85739-2, M85739-4, M85739-6, M85739-8, M85739-10, M85739-12, M85739-14, M85739-16

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: M85739  
Account: LEA - Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14096  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date:

Metal

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(N) Matrix Spike Rec. outside of QC limits  
(anr) Analyte not requested

7.1.2

7

## SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: M85739  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14096  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 09/14/09

09/14/09

Metal	BSP Result	Spikelot MPICP	% Rec	QC Limits	BSD Result	Spikelot MPICP	% Rec	BSD RPD	QC Limit
Aluminum	anr								
Antimony									
Arsenic	520	500	104.0	80-120	518	500	103.6	0.4	20
Barium	2030	2000	101.5	80-120	2010	2000	100.5	1.0	20
Beryllium									
Boron	anr								
Cadmium	526	500	105.2	80-120	513	500	102.6	2.5	20
Calcium									
Chromium	497	500	99.4	80-120	488	500	97.6	1.8	20
Cobalt	anr								
Copper	505	500	101.0	80-120	494	500	98.8	2.2	20
Gold									
Iron	anr								
Lead	1000	1000	100.0	80-120	994	1000	99.4	0.6	20
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	496	500	99.2	80-120	493	500	98.6	0.6	20
Palladium									
Platinum									
Potassium									
Selenium	533	500	106.6	80-120	524	500	104.8	1.7	20
Silicon									
Silver	206	200	103.0	80-120	203	200	101.5	1.5	20
Sodium									
Strontium									
Thallium									
Tin	anr								
Titanium	anr								
Tungsten									
Vanadium									
Zinc	517	500	103.4	80-120	505	500	101.0	2.3	20

Associated samples MP14096: M85739-2, M85739-4, M85739-6, M85739-8, M85739-10, M85739-12, M85739-14, M85739-16

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: M85739  
Account: LEA - Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14096  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date:

Metal

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

# SERIAL DILUTION RESULTS SUMMARY

Login Number: M85739  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14096  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 09/14/09

Metal	M85739-2 Original	SDL 1:5	%DIF	QC Limits
Aluminum	anr			
Antimony				
Arsenic	0.00	0.00	NC	0-10
Barium	118	119	1.1	0-10
Beryllium				
Boron	anr			
Cadmium	0.300	0.00	100.0(a)	0-10
Calcium				
Chromium	0.00	0.00	NC	0-10
Cobalt	anr			
Copper	0.00	0.00	NC	0-10
Gold				
Iron	anr			
Lead	0.00	0.00	NC	0-10
Magnesium	anr			
Manganese	anr			
Molybdenum	anr			
Nickel	2.00	2.70	35.0 (a)	0-10
Palladium				
Platinum				
Potassium				
Selenium	0.00	0.00	NC	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium				
Strontium				
Thallium				
Tin	anr			
Titanium	anr			
Tungsten				
Vanadium				
Zinc	16.8	18.6	10.7 (a)	0-10

Associated samples MP14096: M85739-2, M85739-4, M85739-6, M85739-8, M85739-10, M85739-12, M85739-14, M85739-16

SERIAL DILUTION RESULTS SUMMARY

Login Number: M85739  
Account: LEA - Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14096  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date:

Metal

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

7.1.4

7



BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: M85739  
Account: LEA - Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14104  
Matrix Type: AQUEOUS

Methods: SW846 7470A  
Units: ug/l

Prep Date: 09/15/09

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.20	.035	.048	0.023	<0.20

Associated samples MP14104: M85739-2, M85739-4, M85739-6, M85739-8, M85739-10, M85739-12, M85739-14, M85739-16

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: M85739  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14104  
 Matrix Type: AQUEOUS

Methods: SW846 7470A  
 Units: ug/l

Prep Date: 09/15/09 09/15/09

Metal	M85739-2 Original MS		Spikelot HGRWS1 % Rec		QC Limits	M85739-2 Original DUP		RPD	QC Limits
Mercury	0.0	3.1	3	103.3	75-125	0.0	0.0	NC	0-20

Associated samples MP14104: M85739-2, M85739-4, M85739-6, M85739-8, M85739-10, M85739-12, M85739-14, M85739-16

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

7.2.2

7

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: M85739  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14104  
 Matrix Type: AQUEOUS

Methods: SW846 7470A  
 Units: ug/l

Prep Date: 09/15/09 09/15/09

Metal	BSP Result	Spikelot HGRWS1	% Rec	QC Limits	BSD Result	Spikelot HGRWS1	% Rec	BSD RPD	QC Limit
Mercury	2.9	3	96.7	80-120	2.9	3	96.7	0.0	20

Associated samples MP14104: M85739-2, M85739-4, M85739-6, M85739-8, M85739-10, M85739-12, M85739-14, M85739-16

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested



09/25/09

## Technical Report for

Loureiro Eng. Associates

UTC: 2009 Quarterly GW-Willow Pond

88UT907

Accutest Job Number: M85761

Sampling Date: 09/11/09

Report to:

Loureiro Eng. Associates

rlmckinney@loureiro.com

ATTN: Robin McKinney

Total number of pages in report: **112**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Reza Fand  
Lab Director

Client Service contact: Kristen Blanchard 508-481-6200

Certifications: MA (M-MA136) CT (PH-0109) NH (2502) RI (00071) ME (MA0136) FL (E87579)  
NY (11791) NJ (MA926) NC (653) IL (200018) NAVY USACE

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Test results relate only to samples analyzed.

# Table of Contents

-1-

<b>Section 1: Sample Summary .....</b>	<b>3</b>
<b>Section 2: Case Narrative/Conformance Summary .....</b>	<b>5</b>
<b>Section 3: Sample Results .....</b>	<b>7</b>
<b>3.1:</b> M85761-1: 1130891 .....	8
<b>3.2:</b> M85761-2: 1130891UF .....	13
<b>3.3:</b> M85761-3: 1130890 .....	14
<b>3.4:</b> M85761-4: 1130890UF .....	19
<b>3.5:</b> M85761-5: 1130897 .....	20
<b>3.6:</b> M85761-6: 1130897UF .....	25
<b>3.7:</b> M85761-7: 1130895 .....	26
<b>3.8:</b> M85761-8: 1130949 .....	31
<b>3.9:</b> M85761-9: 1130950 .....	34
<b>3.10:</b> M85761-10: 1130950UF .....	39
<b>3.11:</b> M85761-11: 1130894 .....	40
<b>3.12:</b> M85761-12: 1130893 .....	41
<b>3.13:</b> M85761-13: 1130893UF .....	45
<b>3.14:</b> M85761-14: 1130892 .....	46
<b>3.15:</b> M85761-15: 1130892UF .....	51
<b>3.16:</b> M85761-16: 1130895UF .....	52
<b>3.17:</b> M85761-17: 1130896 .....	53
<b>3.18:</b> M85761-18: 1130896UF .....	58
<b>Section 4: Misc. Forms .....</b>	<b>59</b>
<b>4.1:</b> Certification Exceptions .....	60
<b>4.2:</b> Chain of Custody .....	61
<b>4.3:</b> RCP Form .....	64
<b>4.4:</b> Sample Tracking Chronicle .....	65
<b>Section 5: GC/MS Volatiles - QC Data Summaries .....</b>	<b>69</b>
<b>5.1:</b> Method Blank Summary .....	70
<b>5.2:</b> Blank Spike/Blank Spike Duplicate Summary .....	76
<b>5.3:</b> Matrix Spike/Matrix Spike Duplicate Summary .....	82
<b>5.4:</b> Internal Standard Area Summaries .....	88
<b>5.5:</b> Surrogate Recovery Summaries .....	91
<b>Section 6: GC Semi-volatiles - QC Data Summaries .....</b>	<b>92</b>
<b>6.1:</b> Method Blank Summary .....	93
<b>6.2:</b> Blank Spike Summary .....	95
<b>6.3:</b> Matrix Spike/Matrix Spike Duplicate Summary .....	97
<b>6.4:</b> Surrogate Recovery Summaries .....	99
<b>Section 7: Metals Analysis - QC Data Summaries .....</b>	<b>101</b>
<b>7.1:</b> Prep QC MP14096: As,Ba,Cd,Cr,Cu,Pb,Ni,Se,Ag,Zn .....	102
<b>7.2:</b> Prep QC MP14104: Hg .....	110

## Sample Summary

Loureiro Eng. Associates

Job No: M85761

UTC: 2009 Quarterly GW-Willow Pond  
Project No: 88UT907

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
M85761-1	09/11/09	12:40 RZ	09/11/09	AQ	Ground Water	1130891
M85761-2	09/11/09	12:40 RZ	09/11/09	AQ	Ground Water	1130891UF
M85761-3	09/11/09	10:25 RZ	09/11/09	AQ	Ground Water	1130890
M85761-4	09/11/09	10:25 HG	09/11/09	AQ	Ground Water	1130890UF
M85761-5	09/11/09	13:21 HG	09/11/09	AQ	Ground Water	1130897
M85761-6	09/11/09	13:21 HG	09/11/09	AQ	Ground Water	1130897UF
M85761-7	09/11/09	10:29 HG	09/11/09	AQ	Ground Water	1130895
M85761-8	09/11/09	13:00 HG	09/11/09	AQ	Ground Water	1130949
M85761-9	09/11/09	14:52 HG	09/11/09	AQ	Ground Water	1130950
M85761-10	09/11/09	14:52 HG	09/11/09	AQ	Ground Water	1130950UF
M85761-11	09/11/09	14:10 HG	09/11/09	AQ	Ground Water	1130894
M85761-12	09/11/09	14:00 HG	09/11/09	AQ	Ground Water	1130893
M85761-13	09/11/09	14:00 HG	09/11/09	AQ	Ground Water	1130893UF



Sample Summary  
(continued)

Loureiro Eng. Associates

Job No: M85761

UTC: 2009 Quarterly GW-Willow Pond  
Project No: 88UT907

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
M85761-14	09/11/09	14:40 RZ	09/11/09	AQ	Ground Water	1130892
M85761-15	09/11/09	14:40 RZ	09/11/09	AQ	Ground Water	1130892UF
M85761-16	09/11/09	10:29 HG	09/11/09	AQ	Ground Water	1130895UF
M85761-17	09/11/09	10:29 HG	09/11/09	AQ	Ground Water	1130896
M85761-18	09/11/09	10:29 HG	09/11/09	AQ	Ground Water	1130896UF

## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Loureiro Eng. Associates

**Job No** M85761

**Site:** UTC: 2009 Quarterly GW-Willow Pond

**Report Date** 9/25/2009 4:22:32 PM

18 Sample(s) were collected on 09/11/2009 and were received at Accutest on 09/11/2009 properly preserved, at 2 Deg. C and intact. These Samples received an Accutest job number of M85761. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### Volatiles by GCMS By Method SW846 8260B

<b>Matrix</b> AQ	<b>Batch ID:</b> MSN1366
------------------	--------------------------

- All samples were analyzed within the recommended method holding time.
- Sample(s) M85768-2MS, M85768-2MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- BS/BSD Recovery(s) for several compounds are outside control limits. Blank Spike meets program technical requirements.
- MS/MSD Recovery(s) for several compounds are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- M85768-2MS/MSD for Isopropylbenzene: Outside control limits. Blank Spike meets program technical requirements.
- Continuing calibration check standard for acetone exceed 30% Difference. This check standard met RCP criteria.
- Initial calibration standard MSN1359-ICC1359 for 2,2-dichloropropane are employed quadratic regression  
Initial calibration verification standard MSN1359-ICV1359 for dichlorodifluoromethane exceed 35% Difference.

<b>Matrix</b> AQ	<b>Batch ID:</b> MST488
------------------	-------------------------

- All samples were analyzed within the recommended method holding time.
- Sample(s) M85861-12MS, M85861-12MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- BS/BSD Recovery(s) for 1,2,3-Trichlorobenzene, Acetone, Naphthalene are outside control limits. Blank Spike meets program technical requirements.
- MS/MSD Recovery(s) for 1,2-Dichloropropane are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- MS/MSD Recovery(s) for cis-1,2-Dichloroethene, Tetrachloroethene, Trichloroethene are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- Continuing calibration check standard for acetone, 2-butanone, 2-hexanone exceed 30% Difference. This check standard met RCP criteria.
- Initial calibration standard MST487-ICC487 for chloromethane is employed quadratic regression.

### Extractables by GC By Method CT-ETPH 7/06

<b>Matrix</b> AQ	<b>Batch ID:</b> OP19489
------------------	--------------------------

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M85833-11MS, M85833-11MSD were used as the QC samples indicated.



## Extractables by GC By Method SW846 8082

**Matrix** AQ

**Batch ID:** OP19488

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) M85833-10MS, M85833-10MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

## Metals By Method SW846 6010B

**Matrix** AQ

**Batch ID:** MP14096

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M85739-2DUP, M85739-2MS, M85739-2SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Cadmium, Nickel, Zinc are outside control limits for sample MP14096-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- Only selected metals requested.

## Metals By Method SW846 7470A

**Matrix** AQ

**Batch ID:** MP14104

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M85739-2DUP, M85739-2MS were used as the QC samples for metals.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety. The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report (M85761).



IT'S ALL IN THE CHEMISTRY

## Sample Results

## Report of Analysis

## Report of Analysis

Client Sample ID:	1130891	Date Sampled:	09/11/09
Lab Sample ID:	M85761-1	Date Received:	09/11/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	UTC: 2009 Quarterly GW-Willow Pond		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N36602.D	1	09/18/09	WC	n/a	n/a	MSN1366
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	0.51	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	1.2	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	29.1	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	14.7	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	1.1	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	1130891	Date Sampled:	09/11/09
Lab Sample ID:	M85761-1	Date Received:	09/11/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	5.8	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	2.8	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	3.2	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	6.6	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	32.0	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 1130891  
Lab Sample ID: M85761-1  
Matrix: AQ - Ground Water  
Method: SW846 8260B  
Project: UTC: 2009 Quarterly GW-Willow Pond

Date Sampled: 09/11/09  
Date Received: 09/11/09  
Percent Solids: n/a

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	93%		70-130%
460-00-4	4-Bromofluorobenzene	93%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	1130891	
Lab Sample ID:	M85761-1	Date Sampled: 09/11/09
Matrix:	AQ - Ground Water	Date Received: 09/11/09
Method:	CT-ETPH 7/06 SW846 3510C	Percent Solids: n/a
Project:	UTC: 2009 Quarterly GW-Willow Pond	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC32048.D	1	09/23/09	KD	09/16/09	OP19489	GBC1678
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	0.997	0.080	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
3386-33-2	1-Chlorooctadecane	63%		50-149%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	1130891		
Lab Sample ID:	M85761-1	Date Sampled:	09/11/09
Matrix:	AQ - Ground Water	Date Received:	09/11/09
Method:	SW846 8082 SW846 3510C	Percent Solids:	n/a
Project:	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF70242.D	1	09/18/09	CZ	09/16/09	OP19488	GEF3230
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	74%		30-150%
877-09-8	Tetrachloro-m-xylene	79%		30-150%
2051-24-3	Decachlorobiphenyl	54%		30-150%
2051-24-3	Decachlorobiphenyl	56%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	1130891UF	Date Sampled:	09/11/09
Lab Sample ID:	M85761-2	Date Received:	09/11/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	UTC: 2009 Quarterly GW-Willow Pond		

## Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Barium	< 200	200	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Cadmium	14.7	4.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Copper	< 25	25	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	09/15/09	09/15/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>4</sup>
Nickel	1090	40	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA10953

(2) Instrument QC Batch: MA10962

(3) Prep QC Batch: MP14096

(4) Prep QC Batch: MP14104

RL = Reporting Limit



## Report of Analysis

Client Sample ID:	1130890	Date Sampled:	09/11/09
Lab Sample ID:	M85761-3	Date Received:	09/11/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	UTC: 2009 Quarterly GW-Willow Pond		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N36603.D	1	09/18/09	WC	n/a	n/a	MSN1366
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.0	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	1130890	Date Sampled:	09/11/09
Lab Sample ID:	M85761-3	Date Received:	09/11/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	1130890	Date Sampled:	09/11/09
Lab Sample ID:	M85761-3	Date Received:	09/11/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	92%		70-130%
460-00-4	4-Bromofluorobenzene	88%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	1130890	
Lab Sample ID:	M85761-3	Date Sampled: 09/11/09
Matrix:	AQ - Ground Water	Date Received: 09/11/09
Method:	CT-ETPH 7/06 SW846 3510C	Percent Solids: n/a
Project:	UTC: 2009 Quarterly GW-Willow Pond	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC32050.D	1	09/23/09	KD	09/16/09	OP19489	GBC1678
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	0.126	0.080	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
3386-33-2	1-Chlorooctadecane	61%		50-149%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	1130890		
Lab Sample ID:	M85761-3	Date Sampled:	09/11/09
Matrix:	AQ - Ground Water	Date Received:	09/11/09
Method:	SW846 8082 SW846 3510C	Percent Solids:	n/a
Project:	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF70243.D	1	09/18/09	CZ	09/16/09	OP19488	GEF3230
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	77%		30-150%
877-09-8	Tetrachloro-m-xylene	79%		30-150%
2051-24-3	Decachlorobiphenyl	72%		30-150%
2051-24-3	Decachlorobiphenyl	73%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	1130890UF	Date Sampled:	09/11/09
Lab Sample ID:	M85761-4	Date Received:	09/11/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	UTC: 2009 Quarterly GW-Willow Pond		

## Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	4.7	4.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Barium	< 200	200	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 4.0	4.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Copper	< 25	25	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	09/15/09	09/15/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>4</sup>
Nickel	< 40	40	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA10953

(2) Instrument QC Batch: MA10962

(3) Prep QC Batch: MP14096

(4) Prep QC Batch: MP14104

RL = Reporting Limit

## Report of Analysis

Client Sample ID:	1130897	Date Sampled:	09/11/09
Lab Sample ID:	M85761-5	Date Received:	09/11/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	UTC: 2009 Quarterly GW-Willow Pond		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N36604.D	1	09/18/09	WC	n/a	n/a	MSN1366
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	31.4	1.0	ug/l	
107-06-2	1,2-Dichloroethane	1.3	1.0	ug/l	
75-35-4	1,1-Dichloroethene	22.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	99.4	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	6.3	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	1130897	Date Sampled:	09/11/09
Lab Sample ID:	M85761-5	Date Received:	09/11/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	10.7	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	75.7	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

Client Sample ID:	1130897	Date Sampled:	09/11/09
Lab Sample ID:	M85761-5	Date Received:	09/11/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	90%		70-130%
460-00-4	4-Bromofluorobenzene	89%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	1130897	
Lab Sample ID:	M85761-5	Date Sampled: 09/11/09
Matrix:	AQ - Ground Water	Date Received: 09/11/09
Method:	CT-ETPH 7/06 SW846 3510C	Percent Solids: n/a
Project:	UTC: 2009 Quarterly GW-Willow Pond	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC32052.D	1	09/23/09	KD	09/16/09	OP19489	GBC1678
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	0.118	0.080	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
3386-33-2	1-Chlorooctadecane	72%		50-149%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	1130897	Date Sampled:	09/11/09
Lab Sample ID:	M85761-5	Date Received:	09/11/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8082 SW846 3510C		
Project:	UTC: 2009 Quarterly GW-Willow Pond		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF70244.D	1	09/18/09	CZ	09/16/09	OP19488	GEF3230
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1000 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	91%		30-150%
877-09-8	Tetrachloro-m-xylene	93%		30-150%
2051-24-3	Decachlorobiphenyl	85%		30-150%
2051-24-3	Decachlorobiphenyl	90%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	1130897UF	Date Sampled:	09/11/09
Lab Sample ID:	M85761-6	Date Received:	09/11/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	UTC: 2009 Quarterly GW-Willow Pond		

## Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Barium	344	200	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 4.0	4.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Copper	< 25	25	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	09/15/09	09/15/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>4</sup>
Nickel	< 40	40	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA10953

(2) Instrument QC Batch: MA10962

(3) Prep QC Batch: MP14096

(4) Prep QC Batch: MP14104

RL = Reporting Limit

## Report of Analysis

Client Sample ID:	1130895	Date Sampled:	09/11/09
Lab Sample ID:	M85761-7	Date Received:	09/11/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	UTC: 2009 Quarterly GW-Willow Pond		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N36605.D	1	09/18/09	WC	n/a	n/a	MSN1366
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	0.54	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	7.3	1.0	ug/l	
107-06-2	1,2-Dichloroethane	2.1	1.0	ug/l	
75-35-4	1,1-Dichloroethene	32.2	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	38.4	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	1.9	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	1130895	Date Sampled:	09/11/09
Lab Sample ID:	M85761-7	Date Received:	09/11/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	22.3	1.0	ug/l	
109-99-9	Tetrahydrofuran	58.9	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	7.2	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	162	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	19.8	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	1130895	Date Sampled:	09/11/09
Lab Sample ID:	M85761-7	Date Received:	09/11/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	91%		70-130%
460-00-4	4-Bromofluorobenzene	89%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	1130895	
Lab Sample ID:	M85761-7	Date Sampled: 09/11/09
Matrix:	AQ - Ground Water	Date Received: 09/11/09
Method:	CT-ETPH 7/06 SW846 3510C	Percent Solids: n/a
Project:	UTC: 2009 Quarterly GW-Willow Pond	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC32054.D	1	09/23/09	KD	09/16/09	OP19489	GBC1678
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	0.202	0.080	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
3386-33-2	1-Chlorooctadecane	74%		50-149%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

Client Sample ID:	1130895	Date Sampled:	09/11/09
Lab Sample ID:	M85761-7	Date Received:	09/11/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8082 SW846 3510C		
Project:	UTC: 2009 Quarterly GW-Willow Pond		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF70245.D	1	09/18/09	CZ	09/16/09	OP19488	GEF3230
Run #2							

Run #	Initial Volume	Final Volume
Run #1	950 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.26	ug/l	
11104-28-2	Aroclor 1221	ND	0.26	ug/l	
11141-16-5	Aroclor 1232	ND	0.26	ug/l	
53469-21-9	Aroclor 1242	ND	0.26	ug/l	
12672-29-6	Aroclor 1248	ND	0.26	ug/l	
11097-69-1	Aroclor 1254	ND	0.26	ug/l	
11096-82-5	Aroclor 1260	ND	0.26	ug/l	
37324-23-5	Aroclor 1262	ND	0.26	ug/l	
11100-14-4	Aroclor 1268	ND	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	91%		30-150%
877-09-8	Tetrachloro-m-xylene	103%		30-150%
2051-24-3	Decachlorobiphenyl	83%		30-150%
2051-24-3	Decachlorobiphenyl	85%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	1130949	Date Sampled:	09/11/09
Lab Sample ID:	M85761-8	Date Received:	09/11/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	UTC: 2009 Quarterly GW-Willow Pond		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T13828.D	1	09/19/09	AT	n/a	n/a	MST488
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	1130949	Date Sampled:	09/11/09
Lab Sample ID:	M85761-8	Date Received:	09/11/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	1130949	Date Sampled:	09/11/09
Lab Sample ID:	M85761-8	Date Received:	09/11/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	97%		70-130%
460-00-4	4-Bromofluorobenzene	99%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	1130950	Date Sampled:	09/11/09
Lab Sample ID:	M85761-9	Date Received:	09/11/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	UTC: 2009 Quarterly GW-Willow Pond		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T13829.D	1	09/19/09	AT	n/a	n/a	MST488
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	7.6	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	1130950	Date Sampled:	09/11/09
Lab Sample ID:	M85761-9	Date Received:	09/11/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	1130950	Date Sampled:	09/11/09
Lab Sample ID:	M85761-9	Date Received:	09/11/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	100%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	1130950	
Lab Sample ID:	M85761-9	Date Sampled: 09/11/09
Matrix:	AQ - Ground Water	Date Received: 09/11/09
Method:	CT-ETPH 7/06 SW846 3510C	Percent Solids: n/a
Project:	UTC: 2009 Quarterly GW-Willow Pond	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC32056.D	1	09/23/09	KD	09/16/09	OP19489	GBC1678
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	ND	0.080	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
3386-33-2	1-Chlorooctadecane	59%		50-149%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

Client Sample ID:	1130950	Date Sampled:	09/11/09
Lab Sample ID:	M85761-9	Date Received:	09/11/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8082 SW846 3510C		
Project:	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF70246.D	1	09/18/09	CZ	09/16/09	OP19488	GEF3230
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	81%		30-150%
877-09-8	Tetrachloro-m-xylene	96%		30-150%
2051-24-3	Decachlorobiphenyl	59%		30-150%
2051-24-3	Decachlorobiphenyl	64%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	1130950UF	Date Sampled:	09/11/09
Lab Sample ID:	M85761-10	Date Received:	09/11/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	UTC: 2009 Quarterly GW-Willow Pond		

## Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Barium	< 200	200	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 4.0	4.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Copper	< 25	25	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	09/15/09	09/15/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>4</sup>
Nickel	< 40	40	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA10953

(2) Instrument QC Batch: MA10962

(3) Prep QC Batch: MP14096

(4) Prep QC Batch: MP14104

RL = Reporting Limit

## Report of Analysis

Client Sample ID:	1130894	
Lab Sample ID:	M85761-11	Date Sampled: 09/11/09
Matrix:	AQ - Ground Water	Date Received: 09/11/09
Method:	CT-ETPH 7/06 SW846 3510C	Percent Solids: n/a
Project:	UTC: 2009 Quarterly GW-Willow Pond	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC32058.D	1	09/23/09	KD	09/16/09	OP19489	GBC1678
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	0.287	0.080	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
3386-33-2	1-Chlorooctadecane	70%		50-149%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	1130893	Date Sampled:	09/11/09
Lab Sample ID:	M85761-12	Date Received:	09/11/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	UTC: 2009 Quarterly GW-Willow Pond		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T13830.D	1	09/19/09	AT	n/a	n/a	MST488
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	131	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	31.7	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	1130893	Date Sampled:	09/11/09
Lab Sample ID:	M85761-12	Date Received:	09/11/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	39.6	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	31.4	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	163	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	1130893	Date Sampled:	09/11/09
Lab Sample ID:	M85761-12	Date Received:	09/11/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	98%		70-130%
460-00-4	4-Bromofluorobenzene	102%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	1130893		
Lab Sample ID:	M85761-12	Date Sampled:	09/11/09
Matrix:	AQ - Ground Water	Date Received:	09/11/09
Method:	SW846 8082 SW846 3510C	Percent Solids:	n/a
Project:	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF70250.D	1	09/18/09	SL	09/16/09	OP19488	GEF3231
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	ug/l	
12672-29-6	Aroclor 1248	0.96	0.25	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	80%		30-150%
877-09-8	Tetrachloro-m-xylene	88%		30-150%
2051-24-3	Decachlorobiphenyl	76%		30-150%
2051-24-3	Decachlorobiphenyl	80%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	1130893UF	Date Sampled:	09/11/09
Lab Sample ID:	M85761-13	Date Received:	09/11/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	UTC: 2009 Quarterly GW-Willow Pond		

## Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	6.4	4.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Barium	408	200	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Cadmium	101	4.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Chromium	203	10	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Copper	41.0	25	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	09/15/09	09/15/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>4</sup>
Nickel	605	40	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Zinc	31.6	20	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA10953

(2) Instrument QC Batch: MA10962

(3) Prep QC Batch: MP14096

(4) Prep QC Batch: MP14104

RL = Reporting Limit



## Report of Analysis

Client Sample ID:	1130892	Date Sampled:	09/11/09
Lab Sample ID:	M85761-14	Date Received:	09/11/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	UTC: 2009 Quarterly GW-Willow Pond		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T13831.D	1	09/19/09	AT	n/a	n/a	MST488
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.6	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	1130892	Date Sampled:	09/11/09
Lab Sample ID:	M85761-14	Date Received:	09/11/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	1.8	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	1.4	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	1130892	Date Sampled:	09/11/09
Lab Sample ID:	M85761-14	Date Received:	09/11/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	92%		70-130%
460-00-4	4-Bromofluorobenzene	99%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	1130892	
Lab Sample ID:	M85761-14	Date Sampled: 09/11/09
Matrix:	AQ - Ground Water	Date Received: 09/11/09
Method:	CT-ETPH 7/06 SW846 3510C	Percent Solids: n/a
Project:	UTC: 2009 Quarterly GW-Willow Pond	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC32060.D	1	09/23/09	KD	09/16/09	OP19489	GBC1678
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	0.0808	0.080	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
3386-33-2	1-Chlorooctadecane	62%		50-149%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	1130892		
Lab Sample ID:	M85761-14	Date Sampled:	09/11/09
Matrix:	AQ - Ground Water	Date Received:	09/11/09
Method:	SW846 8082 SW846 3510C	Percent Solids:	n/a
Project:	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF70251.D	1	09/18/09	SL	09/16/09	OP19488	GEF3231
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	82%		30-150%
877-09-8	Tetrachloro-m-xylene	98%		30-150%
2051-24-3	Decachlorobiphenyl	95%		30-150%
2051-24-3	Decachlorobiphenyl	99%		30-150%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	1130892UF	Date Sampled:	09/11/09
Lab Sample ID:	M85761-15	Date Received:	09/11/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	UTC: 2009 Quarterly GW-Willow Pond		

## Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	4.8	4.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Barium	243	200	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 4.0	4.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Copper	< 25	25	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	09/15/09	09/15/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>4</sup>
Nickel	< 40	40	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA10953

(2) Instrument QC Batch: MA10962

(3) Prep QC Batch: MP14096

(4) Prep QC Batch: MP14104

RL = Reporting Limit

## Report of Analysis

Client Sample ID:	1130895UF	Date Sampled:	09/11/09
Lab Sample ID:	M85761-16	Date Received:	09/11/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	UTC: 2009 Quarterly GW-Willow Pond		

## Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	10.1	4.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Barium	309	200	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 4.0	4.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Copper	< 25	25	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	09/15/09	09/15/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>4</sup>
Nickel	54.0	40	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA10953

(2) Instrument QC Batch: MA10962

(3) Prep QC Batch: MP14096

(4) Prep QC Batch: MP14104

RL = Reporting Limit

## Report of Analysis

Client Sample ID:	1130896	Date Sampled:	09/11/09
Lab Sample ID:	M85761-17	Date Received:	09/11/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	UTC: 2009 Quarterly GW-Willow Pond		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T13832.D	10	09/19/09	AT	n/a	n/a	MST488
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
107-13-1	Acrylonitrile	ND	250	ug/l	
71-43-2	Benzene	ND	5.0	ug/l	
108-86-1	Bromobenzene	ND	50	ug/l	
75-27-4	Bromodichloromethane	ND	10	ug/l	
75-25-2	Bromoform	ND	10	ug/l	
74-83-9	Bromomethane	ND	20	ug/l	
78-93-3	2-Butanone (MEK)	ND	50	ug/l	
104-51-8	n-Butylbenzene	ND	50	ug/l	
135-98-8	sec-Butylbenzene	ND	50	ug/l	
98-06-6	tert-Butylbenzene	ND	50	ug/l	
75-15-0	Carbon disulfide	ND	50	ug/l	
56-23-5	Carbon tetrachloride	ND	10	ug/l	
108-90-7	Chlorobenzene	ND	10	ug/l	
75-00-3	Chloroethane	ND	20	ug/l	
67-66-3	Chloroform	ND	10	ug/l	
74-87-3	Chloromethane	ND	20	ug/l	
95-49-8	o-Chlorotoluene	ND	50	ug/l	
106-43-4	p-Chlorotoluene	ND	50	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	50	ug/l	
124-48-1	Dibromochloromethane	ND	10	ug/l	
106-93-4	1,2-Dibromoethane	ND	20	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	10	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	10	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	10	ug/l	
75-71-8	Dichlorodifluoromethane	ND	20	ug/l	
75-34-3	1,1-Dichloroethane	ND	10	ug/l	
107-06-2	1,2-Dichloroethane	ND	10	ug/l	
75-35-4	1,1-Dichloroethene	35.5	10	ug/l	
156-59-2	cis-1,2-Dichloroethene	48.7	10	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	10	ug/l	
78-87-5	1,2-Dichloropropane	ND	20	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

Client Sample ID:	1130896	Date Sampled:	09/11/09
Lab Sample ID:	M85761-17	Date Received:	09/11/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	50	ug/l	
594-20-7	2,2-Dichloropropane	ND	50	ug/l	
563-58-6	1,1-Dichloropropene	ND	50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	ug/l	
100-41-4	Ethylbenzene	ND	10	ug/l	
76-13-1	Freon 113	ND	50	ug/l	
87-68-3	Hexachlorobutadiene	ND	50	ug/l	
591-78-6	2-Hexanone	ND	50	ug/l	
98-82-8	Isopropylbenzene	ND	50	ug/l	
99-87-6	p-Isopropyltoluene	ND	50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	10	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	50	ug/l	
74-95-3	Methylene bromide	ND	50	ug/l	
75-09-2	Methylene chloride	ND	20	ug/l	
91-20-3	Naphthalene	ND	50	ug/l	
103-65-1	n-Propylbenzene	ND	50	ug/l	
100-42-5	Styrene	ND	50	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	10	ug/l	
127-18-4	Tetrachloroethene	19.6	10	ug/l	
109-99-9	Tetrahydrofuran	ND	100	ug/l	
108-88-3	Toluene	ND	10	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	50	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	50	ug/l	
71-55-6	1,1,1-Trichloroethane	12.0	10	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	10	ug/l	
79-01-6	Trichloroethene	194	10	ug/l	
75-69-4	Trichlorofluoromethane	ND	10	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	50	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	50	ug/l	
75-01-4	Vinyl chloride	17.2	10	ug/l	
	m,p-Xylene	ND	10	ug/l	
95-47-6	o-Xylene	ND	10	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	1130896	Date Sampled:	09/11/09
Lab Sample ID:	M85761-17	Date Received:	09/11/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	100%		70-130%
460-00-4	4-Bromofluorobenzene	99%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	1130896	
Lab Sample ID:	M85761-17	Date Sampled: 09/11/09
Matrix:	AQ - Ground Water	Date Received: 09/11/09
Method:	CT-ETPH 7/06 SW846 3510C	Percent Solids: n/a
Project:	UTC: 2009 Quarterly GW-Willow Pond	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC32062.D	1	09/23/09	KD	09/16/09	OP19489	GBC1678
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	0.219	0.080	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
3386-33-2	1-Chlorooctadecane	75%		50-149%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	1130896		
Lab Sample ID:	M85761-17	Date Sampled:	09/11/09
Matrix:	AQ - Ground Water	Date Received:	09/11/09
Method:	SW846 8082 SW846 3510C	Percent Solids:	n/a
Project:	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF70252.D	1	09/18/09	SL	09/16/09	OP19488	GEF3231
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	88%		30-150%
877-09-8	Tetrachloro-m-xylene	91%		30-150%
2051-24-3	Decachlorobiphenyl	69%		30-150%
2051-24-3	Decachlorobiphenyl	71%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	1130896UF	Date Sampled:	09/11/09
Lab Sample ID:	M85761-18	Date Received:	09/11/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	UTC: 2009 Quarterly GW-Willow Pond		

## Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	11.6	4.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Barium	343	200	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 4.0	4.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Copper	< 25	25	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	09/15/09	09/15/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>4</sup>
Nickel	54.8	40	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	09/14/09	09/16/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA10953

(2) Instrument QC Batch: MA10962

(3) Prep QC Batch: MP14096

(4) Prep QC Batch: MP14104

RL = Reporting Limit



## Misc. Forms

### Custody Documents and Other Forms

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Includes the following where applicable:

- Certification Exceptions
- Certification Exceptions (CT)
- Chain of Custody
- RCP Form
- Sample Tracking Chronicle

Parameter Certification Exceptions

Job Number: M85761  
Account: LEA Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

The following parameters included in this report are exceptions to NELAC certification.  
The certification status of each is indicated below.

Parameter	CAS#	Method	Mat	Certification Status
Aroclor 1262	37324-23-5	SW846 8082	AQ	Certified by SOP MGC204/GC-ECD
Aroclor 1268	11100-14-4	SW846 8082	AQ	Certified by SOP MGC204/GC-ECD

4.1  
4

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Laboratories

**CHAIN OF CUSTODY**495 TECHNOLOGY CENTER WEST • BUILDING ONE  
MARLBOROUGH, MA 01752  
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:

M85761

ACCUTEST QUOTE #:

K8222009-453

CLIENT INFORMATION			FACILITY INFORMATION			ANALYTICAL INFORMATION			MATRIX CODES			
Lourdes Engineering Associates 100 Northwest Drive Plainville CT 06062 CITY STATE ZIP Robin McKinney SEND REPORT TO: PHONE # 860-410-3000			PROJECT NAME Willow Brook Pond LOCATION 101st Whitney, East Hartford 880907 PROJECT NO. FAX #			ANALYTICAL INFORMATION PCBs 8002 HCB 8002 AT 8002 Total PCBs & metals Total PCBs & metals			MATRIX CODES DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OI - OIL LIQ - OTHER LIQUID SOL - OTHER SOLID			
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION			MATRIX	# OF BOTTLES	PRESERVATION				LAB USE ONLY	
		DATE	TIME	SAMPLED BY:			HCl	HNO3	H2SO4	NONE		
M85761		9/11/09	1240	RZ	SW	2	X					
-1	1130891		1240	RZ		4				X		
-2	1130891uf		1240	RZ		1		X			X	
-3	1130890		1025	RZ		2	X			X		
-4	1130890		1025	RZ		2				X		
-5	1130890uf		1025	RZ		1		X			X	
-6	1130894		1321	HG		2				X		
-7	1130894		1321	HG		4				X		
-8	1130897		1321	HG		1				X		
-9	1130895		1029	HG		2				X		
-10	1130895		1029	HG		4				X		
DATA TURNAROUND INFORMATION			DATA DELIVERABLE INFORMATION			COMMENTS/REMARKS						
<input checked="" type="checkbox"/> 14 DAYS STANDARD APPROVED BY: _____ <input type="checkbox"/> 7 DAYS RUSH <input type="checkbox"/> 48 HOUR EMERGENCY <input type="checkbox"/> OTHER			<input checked="" type="checkbox"/> STANDARD loc 18c, 5B, 2c6 <input type="checkbox"/> COMMERCIAL "B" <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> STATE FORMS <input type="checkbox"/> OTHER (SPECIFY) _____			Provide CT RCP analytical lists for VOCs & PCBs & provide CT RCP report						
14 DAY TURNAROUND HARDCOPY, EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED												
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY												
RELINQUISHED BY SAMPLER: 1. <i>Robin McKinney</i>	DATE TIME: 9/11/09 6:00	RECEIVED BY: 1. <i>Bob</i>	RELINQUISHED BY: 2. <i>Be</i>	DATE TIME: 9-11-09 17:45	RECEIVED BY: 2. <i>Be</i>							
RELINQUISHED BY: 3.	DATE TIME:	RECEIVED BY: 3.	RELINQUISHED BY: 4.	DATE TIME:	RECEIVED BY: 4.							
RELINQUISHED BY: 5.	DATE TIME:	RECEIVED BY: 5.	SEAL #	PRESERVE WHERE APPLICABLE <input type="checkbox"/>	ON ICE <input checked="" type="checkbox"/>	TEMPERATURE 2.5°C						

M85761: Chain of Custody

Page 1 of 3





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2 of 3

# CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE  
MARLBOROUGH, MA 01752  
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #: M85761

ACCUTEST QUOTE #: V B12009-453

CLIENT INFORMATION		FACILITY INFORMATION		ANALYTICAL INFORMATION		MATRIX CODES									
NAME: Loureiro Engineering Associates ADDRESS: 100 Northwest Drive City: Plainville CT 06062 STATE: CT SEND REPORT TO: Robin McKinney PHONE #: 860-410-3000		PROJECT NAME: Willow Brook Pond LOCATION: Pratt Whitney, East Hartford PROJECT NO.: 880907 FAX #:		ANALYTICAL INFORMATION: 9/11/09 1300 Hg 1 X 1452 Hg 2 X 1452 Hg 2 X 1452 Hg 2 X 1410 Hg 2 X 1400 Hg 2 X 1400 Hg 2 X 1440 RZ 2 X 1440 RZ 2 X 1440 RZ 2 X		MATRIX CODES: DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OI - OIL LIQ - OTHER LIQUID SOL - OTHER SOLID									
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION		MATRIX	# OF BOTTLES	PRESERVATION								LAB USE ONLY	
		DATE	TIME			SAMPLED BY:	HCl	NaOH	HN03	H2SO4	NONE	OTHER			
-8	1130949	9/11/09	1300	Hg	GW	1	X								
-9	1130950		1452	Hg		2	X								
-9	1130950		1452	Hg		2	X								
-10	1130950uf		1452	Hg		2	X								
-11	1130894		1410	Hg		2	X								
-12	1130893		1400	Hg		2	X								
-12	1130893		1400	Hg		2	X								
-13	1130893uf		1400	Hg		2	X								
-14	1130892		1440	RZ		2	X								
-14	1130892		1440	RZ		2	X								
-15	1130892uf		1440	RZ		2	X								
DATA TURNAROUND INFORMATION		DATA DELIVERABLE INFORMATION		COMMENTS/REMARKS											
<input checked="" type="checkbox"/> 14 DAYS STANDARD <input type="checkbox"/> 7 DAYS RUSH <input type="checkbox"/> 48 HOUR EMERGENCY <input type="checkbox"/> OTHER		<input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> COMMERCIAL "B" <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> STATE FORMS <input type="checkbox"/> OTHER (SPECIFY)		Provide CT RCP analytical lists for VOCs, PCBs & provide CT RCP report											
14 DAY TURNAROUND HARDCOPY, EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED															
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY															
RELINQUISHED BY: 1. [Signature]	DATE TIME: 9/11/09 16:20	RECEIVED BY: 1. [Signature]	RELINQUISHED BY: 2.	DATE TIME:	RECEIVED BY: 2.										
RELINQUISHED BY: 3.	DATE TIME:	RECEIVED BY: 3.	RELINQUISHED BY: 4.	DATE TIME:	RECEIVED BY: 4.										
RELINQUISHED BY: 5.	DATE TIME:	RECEIVED BY: 5.	SEAL #	PRESERVE WHERE APPLICABLE		ON ICE	TEMPERATURE C								

M85761: Chain of Custody

Page 2 of 3



**ACCUTEST.**  
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# CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE  
MARLBOROUGH, MA 01752  
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:

M 85761

ACCUTEST QUOTE #:

15212009-453

CLIENT INFORMATION		FACILITY INFORMATION		ANALYTICAL INFORMATION		MATRIX CODES						
Loureiro Engineering Associates NAME 100 Northwest Drive ADDRESS Plainville CT 06062 CITY John McKinney STATE ZIP SEND REPORT TO: PHONE # 860-410-3000		Willow Brook Land PROJECT NAME Draft Whitney, East Hartford LOCATION 884907 PROJECT NO. FAX #		VOC 8200B PCB 882 CT EPA 1000 PCB 8 Metals		DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OI - OIL LIQ - OTHER LIQUID SOL - OTHER SOLID						
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION		MATRIX	# OF BOTTLES	PRESERVATION					LAB USE ONLY	
		DATE	TIME			SAMPLED BY:	HCl	NHCl	NHCl	NHCl		NONE
-16	1130895uf	9/11/09	1029	HG	6W							
-17	1130896	9/11/09	1029	HG	2	X						
-18	1130897	9/11/09	1029	HG	4							
-18	1130898	9/11/09	1029	HG	1							
DATA TURNAROUND INFORMATION		DATA DELIVERABLE INFORMATION		COMMENTS/REMARKS								
<input checked="" type="checkbox"/> 14 DAYS STANDARD <input type="checkbox"/> 7 DAYS RUSH <input type="checkbox"/> 48 HOUR EMERGENCY <input type="checkbox"/> OTHER 14 DAY TURNAROUND HARDCOPY, EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED		APPROVED BY: _____ <input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> COMMERCIAL "B" <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> STATE FORMS <input type="checkbox"/> OTHER (SPECIFY) _____		Provide CT REP analytical lists for VOCs & PCBs & provide CT REP report								
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY												
RELINQUISHED BY: 1. [Signature]	DATE TIME: 9/11/09 10:20	RECEIVED BY: 1. [Signature]	DATE TIME:	RELINQUISHED BY: 2.	DATE TIME:	RECEIVED BY: 2.	DATE TIME:	RELINQUISHED BY: 3.	DATE TIME:	RECEIVED BY: 3.	DATE TIME:	
RELINQUISHED BY: 4.	DATE TIME:	RECEIVED BY: 4.	DATE TIME:	RELINQUISHED BY: 5.	DATE TIME:	RECEIVED BY: 5.	DATE TIME:	RELINQUISHED BY: 6.	DATE TIME:	RECEIVED BY: 6.	DATE TIME:	
RELINQUISHED BY: 7.	DATE TIME:	RECEIVED BY: 7.	DATE TIME:	RELINQUISHED BY: 8.	DATE TIME:	RECEIVED BY: 8.	DATE TIME:	RELINQUISHED BY: 9.	DATE TIME:	RECEIVED BY: 9.	DATE TIME:	
SEAL #				PRESERVE WHERE APPLICABLE				ON ICE				
TEMPERATURE				TEMPERATURE				TEMPERATURE				

M85761: Chain of Custody

Page 3 of 3

# Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Laboratory Name: Accutest New England Client: Loureiro Eng. Associates

Project Location: UTC: 2009 Quarterly GW-Willow Pond Project Number: 88UT907

Sampling Date(s): 9/11/2009

Laboratory Sample ID(s): M85761-1, M85761-2, M85761-3, M85761-4, M85761-5, M85761-6, M85761-7, M85761-8, M85761-9, M85761-10, M85761-11, M85761-12, M85761-13, M85761-14, M85761-15, M85761-16, M85761-17, M85761-18

Methods: CT-ETPH 7/06, SW846 6010B, SW846 7470A, SW846 8082, 8260B

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CTDEP method-specific Reasonable Confidence Protocol documents)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1A	Where all the method specified preservation and holding time requirements met?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1B	VPH and EPH methods only: Was the VPH or EPH method conducted without significant modifications (See section 11.3 of respective methods)	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
3	Were samples received at an appropriate temperature (<6° C)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
4	Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
5	a) Were reporting limits specified or referenced on the chain-of-custody?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
	b) Were these reporting limits met?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
7	Are project-specific matrix spikes and laboratory duplicates included in this data set?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Note: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or #1B is "No", the data package does not meet the requirements for "Reasonable Confidence".

I, the undersigned, attest under pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized

Signature:

Position: Lab Director

Printed Name: Reza Tand  
Accutest New England

Date: 9/25/2009

## Internal Sample Tracking Chronicle

Loureiro Eng. Associates

Job No: M85761

UTC: 2009 Quarterly GW-Willow Pond  
Project No: 88UT907

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M85761-1 1130891	Collected: 11-SEP-09 12:40	By: RZ	Received: 11-SEP-09	By: SAP		
M85761-1	SW846 8082	18-SEP-09 03:55	CZ	16-SEP-09	FG	P8082RCP
M85761-1	SW846 8260B	18-SEP-09 19:57	WC			V8260RCP
M85761-1	CT-ETPH 7/06	23-SEP-09 07:11	KD	16-SEP-09	AJ	BCTTPH
M85761-2 1130891UF	Collected: 11-SEP-09 12:40	By: RZ	Received: 11-SEP-09	By: SAP		
M85761-2	SW846 7470A	15-SEP-09 13:37	MA	15-SEP-09	MA	HG
M85761-2	SW846 6010B	16-SEP-09 17:43	PY	14-SEP-09	EAL	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M85761-3 1130890	Collected: 11-SEP-09 10:25	By: RZ	Received: 11-SEP-09	By: SAP		
M85761-3	SW846 8082	18-SEP-09 04:24	CZ	16-SEP-09	FG	P8082RCP
M85761-3	SW846 8260B	18-SEP-09 20:26	WC			V8260RCP
M85761-3	CT-ETPH 7/06	23-SEP-09 07:50	KD	16-SEP-09	AJ	BCTTPH
M85761-4 1130890UF	Collected: 11-SEP-09 10:25	By: HG	Received: 11-SEP-09	By: SAP		
M85761-4	SW846 7470A	15-SEP-09 13:40	MA	15-SEP-09	MA	HG
M85761-4	SW846 6010B	16-SEP-09 17:57	PY	14-SEP-09	EAL	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M85761-5 1130897	Collected: 11-SEP-09 13:21	By: HG	Received: 11-SEP-09	By: SAP		
M85761-5	SW846 8082	18-SEP-09 05:08	CZ	16-SEP-09	FG	P8082RCP
M85761-5	SW846 8260B	18-SEP-09 20:54	WC			V8260RCP
M85761-5	CT-ETPH 7/06	23-SEP-09 08:30	KD	16-SEP-09	AJ	BCTTPH
M85761-6 1130897UF	Collected: 11-SEP-09 13:21	By: HG	Received: 11-SEP-09	By: SAP		
M85761-6	SW846 7470A	15-SEP-09 13:42	MA	15-SEP-09	MA	HG

## Internal Sample Tracking Chronicle

Loureiro Eng. Associates

Job No: M85761

UTC: 2009 Quarterly GW-Willow Pond  
Project No: 88UT907

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M85761-6	SW846 6010B	16-SEP-09 18:01	PY	14-SEP-09	EAL	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M85761-7 1130895	Collected: 11-SEP-09 10:29 By: HG		Received: 11-SEP-09 By: SAP			
M85761-7	SW846 8082	18-SEP-09 05:38	CZ	16-SEP-09	FG	P8082RCP
M85761-7	SW846 8260B	18-SEP-09 21:23	WC			V8260RCP
M85761-7	CT-ETPH 7/06	23-SEP-09 09:09	KD	16-SEP-09	AJ	BCTTPH
M85761-8 1130949	Collected: 11-SEP-09 13:00 By: HG		Received: 11-SEP-09 By: SAP			
M85761-8	SW846 8260B	19-SEP-09 16:27	AT			V8260RCP
M85761-9 1130950	Collected: 11-SEP-09 14:52 By: HG		Received: 11-SEP-09 By: SAP			
M85761-9	SW846 8082	18-SEP-09 06:22	CZ	16-SEP-09	FG	P8082RCP
M85761-9	SW846 8260B	19-SEP-09 16:54	AT			V8260RCP
M85761-9	CT-ETPH 7/06	23-SEP-09 09:48	KD	16-SEP-09	AJ	BCTTPH
M85761-10 1130950UF	Collected: 11-SEP-09 14:52 By: HG		Received: 11-SEP-09 By: SAP			
M85761-10	SW846 7470A	15-SEP-09 13:45	MA	15-SEP-09	MA	HG
M85761-10	SW846 6010B	16-SEP-09 18:06	PY	14-SEP-09	EAL	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M85761-11 1130894	Collected: 11-SEP-09 14:10 By: HG		Received: 11-SEP-09 By: SAP			
M85761-11	CT-ETPH 7/06	23-SEP-09 10:28	KD	16-SEP-09	AJ	BCTTPH
M85761-12 1130893	Collected: 11-SEP-09 14:00 By: HG		Received: 11-SEP-09 By: SAP			
M85761-12	SW846 8082	18-SEP-09 09:32	SL	16-SEP-09	FG	P8082RCP
M85761-12	SW846 8260B	19-SEP-09 17:20	AT			V8260RCP

## Internal Sample Tracking Chronicle

Loureiro Eng. Associates

Job No: M85761

UTC: 2009 Quarterly GW-Willow Pond  
Project No: 88UT907

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M85761-13 Collected: 11-SEP-09 14:00 By: HG Received: 11-SEP-09 By: SAP 1130893UF						
M85761-13	SW846 7470A	15-SEP-09 13:47	MA	15-SEP-09	MA	HG
M85761-13	SW846 6010B	16-SEP-09 18:10	PY	14-SEP-09	EAL	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M85761-14 Collected: 11-SEP-09 14:40 By: RZ Received: 11-SEP-09 By: SAP 1130892						
M85761-14	SW846 8082	18-SEP-09 10:02	SL	16-SEP-09	FG	P8082RCP
M85761-14	SW846 8260B	19-SEP-09 17:47	AT			V8260RCP
M85761-14	CT-ETPH 7/06	23-SEP-09 11:07	KD	16-SEP-09	AJ	BCTTPH
M85761-15 Collected: 11-SEP-09 14:40 By: RZ Received: 11-SEP-09 By: SAP 1130892UF						
M85761-15	SW846 7470A	15-SEP-09 13:49	MA	15-SEP-09	MA	HG
M85761-15	SW846 6010B	16-SEP-09 18:14	PY	14-SEP-09	EAL	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M85761-16 Collected: 11-SEP-09 10:29 By: HG Received: 11-SEP-09 By: SAP 1130895UF						
M85761-16	SW846 7470A	15-SEP-09 13:56	MA	15-SEP-09	MA	HG
M85761-16	SW846 6010B	16-SEP-09 18:19	PY	14-SEP-09	EAL	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M85761-17 Collected: 11-SEP-09 10:29 By: HG Received: 11-SEP-09 By: SAP 1130896						
M85761-17	SW846 8082	18-SEP-09 10:46	SL	16-SEP-09	FG	P8082RCP
M85761-17	SW846 8260B	19-SEP-09 18:14	AT			V8260RCP
M85761-17	CT-ETPH 7/06	23-SEP-09 11:46	KD	16-SEP-09	AJ	BCTTPH
M85761-18 Collected: 11-SEP-09 10:29 By: HG Received: 11-SEP-09 By: SAP 1130896UF						
M85761-18	SW846 7470A	15-SEP-09 13:58	MA	15-SEP-09	MA	HG

Internal Sample Tracking Chronicle

Loureiro Eng. Associates

Job No: M85761

UTC: 2009 Quarterly GW-Willow Pond  
Project No: 88UT907

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M85761-18	SW846 6010B	16-SEP-09 18:23	PY	14-SEP-09	EAL	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN



## GC/MS Volatiles

5

### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries



## Method Blank Summary

Page 1 of 3

Job Number: M85761

Account: LEA Loureiro Eng. Associates

Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1366-MB	N36584A.D	1	09/18/09	WC	n/a	n/a	MSN1366

The QC reported here applies to the following samples:

Method: SW846 8260B

M85761-1, M85761-3, M85761-5, M85761-7

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	

## Method Blank Summary

Page 2 of 3

Job Number: M85761  
Account: LEA Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1366-MB	N36584A.D	1	09/18/09	WC	n/a	n/a	MSN1366

The QC reported here applies to the following samples:

Method: SW846 8260B

M85761-1, M85761-3, M85761-5, M85761-7

CAS No.	Compound	Result	RL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

## Method Blank Summary

Page 3 of 3

Job Number: M85761  
Account: LEA Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1366-MB	N36584A.D	1	09/18/09	WC	n/a	n/a	MSN1366

The QC reported here applies to the following samples:

Method: SW846 8260B

M85761-1, M85761-3, M85761-5, M85761-7

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	91% 70-130%
2037-26-5	Toluene-D8	92% 70-130%
460-00-4	4-Bromofluorobenzene	95% 70-130%

## Method Blank Summary

Page 1 of 3

Job Number: M85761  
Account: LEA Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MST488-MB	T13824.D	1	09/19/09	AT	n/a	n/a	MST488

The QC reported here applies to the following samples:

Method: SW846 8260B

M85761-8, M85761-9, M85761-12, M85761-14, M85761-17

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	

## Method Blank Summary

Page 2 of 3

Job Number: M85761  
Account: LEA Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MST488-MB	T13824.D	1	09/19/09	AT	n/a	n/a	MST488

The QC reported here applies to the following samples:

Method: SW846 8260B

M85761-8, M85761-9, M85761-12, M85761-14, M85761-17

CAS No.	Compound	Result	RL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

Method Blank Summary

Job Number: M85761  
Account: LEA Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MST488-MB	T13824.D	1	09/19/09	AT	n/a	n/a	MST488

The QC reported here applies to the following samples: Method: SW846 8260B

M85761-8, M85761-9, M85761-12, M85761-14, M85761-17

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	94% 70-130%
2037-26-5	Toluene-D8	98% 70-130%
460-00-4	4-Bromofluorobenzene	99% 70-130%

# Blank Spike/Blank Spike Duplicate Summary

Page 1 of 3

Job Number: M85761  
Account: LEA Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1366-BS	N36581A.D	1	09/18/09	WC	n/a	n/a	MSN1366
MSN1366-BSD	N36582A.D	1	09/18/09	WC	n/a	n/a	MSN1366

The QC reported here applies to the following samples:

Method: SW846 8260B

M85761-1, M85761-3, M85761-5, M85761-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	37.2	74	38.6	77	4	70-130/25
107-13-1	Acrylonitrile	250	206	82	213	85	3	70-130/25
71-43-2	Benzene	50	43.9	88	45.3	91	3	70-130/25
108-86-1	Bromobenzene	50	59.4	119	60.2	120	1	70-130/25
75-27-4	Bromodichloromethane	50	46.4	93	48.2	96	4	70-130/25
75-25-2	Bromoform	50	49.9	100	50.8	102	2	70-130/25
74-83-9	Bromomethane	50	38.3	77	40.7	81	6	70-130/25
78-93-3	2-Butanone (MEK)	50	43.6	87	42.7	85	2	70-130/25
104-51-8	n-Butylbenzene	50	57.3	115	59.5	119	4	70-130/25
135-98-8	sec-Butylbenzene	50	60.3	121	61.9	124	3	70-130/25
98-06-6	tert-Butylbenzene	50	62.7	125	64.6	129	3	70-130/25
75-15-0	Carbon disulfide	50	40.1	80	40.9	82	2	70-130/25
56-23-5	Carbon tetrachloride	50	48.0	96	48.6	97	1	70-130/25
108-90-7	Chlorobenzene	50	51.0	102	52.3	105	3	70-130/25
75-00-3	Chloroethane	50	38.7	77	40.3	81	4	70-130/25
67-66-3	Chloroform	50	39.3	79	40.6	81	3	70-130/25
74-87-3	Chloromethane	50	40.9	82	43.9	88	7	70-130/25
95-49-8	o-Chlorotoluene	50	61.2	122	63.7	127	4	70-130/25
106-43-4	p-Chlorotoluene	50	58.0	116	59.5	119	3	70-130/25
96-12-8	1,2-Dibromo-3-chloropropane	50	62.2	124	65.5	131* a	5	70-130/25
124-48-1	Dibromochloromethane	50	58.2	116	59.8	120	3	70-130/25
106-93-4	1,2-Dibromoethane	50	54.5	109	55.4	111	2	70-130/25
95-50-1	1,2-Dichlorobenzene	50	58.6	117	61.3	123	5	70-130/25
541-73-1	1,3-Dichlorobenzene	50	56.7	113	57.7	115	2	70-130/25
106-46-7	1,4-Dichlorobenzene	50	59.7	119	62.0	124	4	70-130/25
75-71-8	Dichlorodifluoromethane	50	46.4	93	47.8	96	3	70-130/25
75-34-3	1,1-Dichloroethane	50	40.6	81	42.2	84	4	70-130/25
107-06-2	1,2-Dichloroethane	50	46.1	92	46.9	94	2	70-130/25
75-35-4	1,1-Dichloroethene	50	39.2	78	40.1	80	2	70-130/25
156-59-2	cis-1,2-Dichloroethene	50	40.1	80	41.7	83	4	70-130/25
156-60-5	trans-1,2-Dichloroethene	50	38.8	78	40.3	81	4	70-130/25
78-87-5	1,2-Dichloropropane	50	45.9	92	47.2	94	3	70-130/25
142-28-9	1,3-Dichloropropane	50	53.6	107	54.5	109	2	70-130/25
594-20-7	2,2-Dichloropropane	50	40.7	81	42.0	84	3	70-130/25
563-58-6	1,1-Dichloropropene	50	45.4	91	47.0	94	3	70-130/25
10061-01-5	cis-1,3-Dichloropropene	50	44.8	90	46.5	93	4	70-130/25

# Blank Spike/Blank Spike Duplicate Summary

Page 2 of 3

Job Number: M85761

Account: LEA Loureiro Eng. Associates

Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1366-BS	N36581A.D	1	09/18/09	WC	n/a	n/a	MSN1366
MSN1366-BSD	N36582A.D	1	09/18/09	WC	n/a	n/a	MSN1366

The QC reported here applies to the following samples:

Method: SW846 8260B

M85761-1, M85761-3, M85761-5, M85761-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	50	47.0	94	49.2	98	5	70-130/25
100-41-4	Ethylbenzene	50	52.7	105	53.7	107	2	70-130/25
76-13-1	Freon 113	50	42.0	84	42.6	85	1	70-130/25
87-68-3	Hexachlorobutadiene	50	61.9	124	62.7	125	1	70-130/25
591-78-6	2-Hexanone	50	56.9	114	57.3	115	1	70-130/25
98-82-8	Isopropylbenzene	50	73.3	147* a	76.3	153* a	4	70-130/25
99-87-6	p-Isopropyltoluene	50	60.8	122	63.2	126	4	70-130/25
1634-04-4	Methyl Tert Butyl Ether	50	43.6	87	45.1	90	3	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	46.9	94	48.5	97	3	70-130/25
74-95-3	Methylene bromide	50	46.3	93	47.6	95	3	70-130/25
75-09-2	Methylene chloride	50	40.2	80	41.3	83	3	70-130/25
91-20-3	Naphthalene	50	66.9	134* a	68.8	138* a	3	70-130/25
103-65-1	n-Propylbenzene	50	59.3	119	61.4	123	3	70-130/25
100-42-5	Styrene	50	49.3	99	50.0	100	1	70-130/25
630-20-6	1,1,1,2-Tetrachloroethane	50	55.2	110	55.8	112	1	70-130/25
79-34-5	1,1,2,2-Tetrachloroethane	50	65.5	131* a	67.8	136* a	3	70-130/25
127-18-4	Tetrachloroethene	50	50.9	102	51.3	103	1	70-130/25
109-99-9	Tetrahydrofuran	50	42.4	85	43.2	86	2	70-130/25
108-88-3	Toluene	50	45.8	92	46.8	94	2	70-130/25
110-57-6	Trans-1,4-Dichloro-2-Butene	50	49.6	99	52.8	106	6	70-130/25
87-61-6	1,2,3-Trichlorobenzene	50	60.9	122	62.3	125	2	70-130/25
120-82-1	1,2,4-Trichlorobenzene	50	62.3	125	65.3	131* a	5	70-130/25
71-55-6	1,1,1-Trichloroethane	50	41.4	83	42.4	85	2	70-130/25
79-00-5	1,1,2-Trichloroethane	50	45.9	92	46.6	93	2	70-130/25
79-01-6	Trichloroethene	50	45.5	91	47.1	94	3	70-130/25
75-69-4	Trichlorofluoromethane	50	39.4	79	40.7	81	3	70-130/25
96-18-4	1,2,3-Trichloropropane	50	60.1	120	61.6	123	2	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	60.7	121	62.8	126	3	70-130/25
108-67-8	1,3,5-Trimethylbenzene	50	63.1	126	65.2	130	3	70-130/25
75-01-4	Vinyl chloride	50	47.3	95	49.2	98	4	70-130/25
	m,p-Xylene	100	103	103	105	105	2	70-130/25
95-47-6	o-Xylene	50	54.0	108	55.1	110	2	70-130/25



## Blank Spike/Blank Spike Duplicate Summary

Page 3 of 3

Job Number: M85761

Account: LEA Loureiro Eng. Associates

Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1366-BS	N36581A.D	1	09/18/09	WC	n/a	n/a	MSN1366
MSN1366-BSD	N36582A.D	1	09/18/09	WC	n/a	n/a	MSN1366

The QC reported here applies to the following samples:

Method: SW846 8260B

M85761-1, M85761-3, M85761-5, M85761-7

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	89%	91%	70-130%
2037-26-5	Toluene-D8	96%	97%	70-130%
460-00-4	4-Bromofluorobenzene	110%	111%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

# Blank Spike/Blank Spike Duplicate Summary

Page 1 of 3

Job Number: M85761

Account: LEA Loureiro Eng. Associates

Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MST488-BS	T13821.D	1	09/19/09	AT	n/a	n/a	MST488
MST488-BSD	T13822.D	1	09/19/09	AT	n/a	n/a	MST488

The QC reported here applies to the following samples:

Method: SW846 8260B

M85761-8, M85761-9, M85761-12, M85761-14, M85761-17

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	79.7	159* a	74.5	149* a	7	70-130/25
107-13-1	Acrylonitrile	250	240	96	240	96	0	70-130/25
71-43-2	Benzene	50	55.2	110	52.9	106	4	70-130/25
108-86-1	Bromobenzene	50	57.8	116	54.8	110	5	70-130/25
75-27-4	Bromodichloromethane	50	50.9	102	49.3	99	3	70-130/25
75-25-2	Bromoform	50	50.8	102	49.1	98	3	70-130/25
74-83-9	Bromomethane	50	49.6	99	46.1	92	7	70-130/25
78-93-3	2-Butanone (MEK)	50	55.7	111	55.6	111	0	70-130/25
104-51-8	n-Butylbenzene	50	60.7	121	56.5	113	7	70-130/25
135-98-8	sec-Butylbenzene	50	60.5	121	56.5	113	7	70-130/25
98-06-6	tert-Butylbenzene	50	59.5	119	56.0	112	6	70-130/25
75-15-0	Carbon disulfide	50	56.6	113	52.4	105	8	70-130/25
56-23-5	Carbon tetrachloride	50	51.8	104	50.2	100	3	70-130/25
108-90-7	Chlorobenzene	50	58.4	117	55.6	111	5	70-130/25
75-00-3	Chloroethane	50	52.9	106	50.4	101	5	70-130/25
67-66-3	Chloroform	50	51.1	102	47.9	96	6	70-130/25
74-87-3	Chloromethane	50	50.3	101	45.4	91	10	70-130/25
95-49-8	o-Chlorotoluene	50	58.3	117	54.2	108	7	70-130/25
106-43-4	p-Chlorotoluene	50	59.2	118	54.9	110	8	70-130/25
96-12-8	1,2-Dibromo-3-chloropropane	50	47.5	95	46.3	93	3	70-130/25
124-48-1	Dibromochloromethane	50	57.7	115	55.3	111	4	70-130/25
106-93-4	1,2-Dibromoethane	50	57.1	114	55.5	111	3	70-130/25
95-50-1	1,2-Dichlorobenzene	50	57.4	115	53.6	107	7	70-130/25
541-73-1	1,3-Dichlorobenzene	50	57.9	116	54.0	108	7	70-130/25
106-46-7	1,4-Dichlorobenzene	50	56.9	114	53.4	107	6	70-130/25
75-71-8	Dichlorodifluoromethane	50	51.9	104	49.8	100	4	70-130/25
75-34-3	1,1-Dichloroethane	50	52.7	105	48.9	98	7	70-130/25
107-06-2	1,2-Dichloroethane	50	47.2	94	45.6	91	3	70-130/25
75-35-4	1,1-Dichloroethene	50	56.6	113	52.6	105	7	70-130/25
156-59-2	cis-1,2-Dichloroethene	50	56.9	114	53.1	106	7	70-130/25
156-60-5	trans-1,2-Dichloroethene	50	54.8	110	51.0	102	7	70-130/25
78-87-5	1,2-Dichloropropane	50	53.5	107	51.1	102	5	70-130/25
142-28-9	1,3-Dichloropropane	50	53.9	108	51.6	103	4	70-130/25
594-20-7	2,2-Dichloropropane	50	57.9	116	54.5	109	6	70-130/25
563-58-6	1,1-Dichloropropene	50	56.2	112	54.6	109	3	70-130/25
10061-01-5	cis-1,3-Dichloropropene	50	58.0	116	56.2	112	3	70-130/25

# Blank Spike/Blank Spike Duplicate Summary

Page 2 of 3

Job Number: M85761

Account: LEA Loureiro Eng. Associates

Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MST488-BS	T13821.D	1	09/19/09	AT	n/a	n/a	MST488
MST488-BSD	T13822.D	1	09/19/09	AT	n/a	n/a	MST488

The QC reported here applies to the following samples:

Method: SW846 8260B

M85761-8, M85761-9, M85761-12, M85761-14, M85761-17

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	50	57.1	114	55.3	111	3	70-130/25
100-41-4	Ethylbenzene	50	61.8	124	58.5	117	5	70-130/25
76-13-1	Freon 113	50	54.0	108	52.5	105	3	70-130/25
87-68-3	Hexachlorobutadiene	50	56.5	113	54.0	108	5	70-130/25
591-78-6	2-Hexanone	50	59.2	118	56.0	112	6	70-130/25
98-82-8	Isopropylbenzene	50	61.6	123	57.3	115	7	70-130/25
99-87-6	p-Isopropyltoluene	50	60.0	120	56.4	113	6	70-130/25
1634-04-4	Methyl Tert Butyl Ether	50	53.7	107	51.3	103	5	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	49.0	98	46.2	92	6	70-130/25
74-95-3	Methylene bromide	50	50.7	101	49.1	98	3	70-130/25
75-09-2	Methylene chloride	50	53.6	107	50.2	100	7	70-130/25
91-20-3	Naphthalene	50	74.3	149* a	66.0	132* a	12	70-130/25
103-65-1	n-Propylbenzene	50	61.0	122	57.0	114	7	70-130/25
100-42-5	Styrene	50	59.8	120	57.1	114	5	70-130/25
630-20-6	1,1,1,2-Tetrachloroethane	50	57.3	115	54.4	109	5	70-130/25
79-34-5	1,1,2,2-Tetrachloroethane	50	53.4	107	50.6	101	5	70-130/25
127-18-4	Tetrachloroethene	50	61.9	124	58.8	118	5	70-130/25
109-99-9	Tetrahydrofuran	50	47.2	94	47.7	95	1	70-130/25
108-88-3	Toluene	50	55.6	111	53.1	106	5	70-130/25
110-57-6	Trans-1,4-Dichloro-2-Butene	50	53.5	107	50.4	101	6	70-130/25
87-61-6	1,2,3-Trichlorobenzene	50	79.0	158* a	68.3	137* a	15	70-130/25
120-82-1	1,2,4-Trichlorobenzene	50	62.0	124	55.5	111	11	70-130/25
71-55-6	1,1,1-Trichloroethane	50	51.4	103	48.6	97	6	70-130/25
79-00-5	1,1,2-Trichloroethane	50	51.3	103	50.4	101	2	70-130/25
79-01-6	Trichloroethene	50	55.0	110	52.6	105	4	70-130/25
75-69-4	Trichlorofluoromethane	50	50.9	102	48.2	96	5	70-130/25
96-18-4	1,2,3-Trichloropropane	50	53.8	108	50.6	101	6	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	60.4	121	56.4	113	7	70-130/25
108-67-8	1,3,5-Trimethylbenzene	50	60.2	120	55.8	112	8	70-130/25
75-01-4	Vinyl chloride	50	51.5	103	47.6	95	8	70-130/25
	m,p-Xylene	100	127	127	121	121	5	70-130/25
95-47-6	o-Xylene	50	58.4	117	55.0	110	6	70-130/25

## Blank Spike/Blank Spike Duplicate Summary

Page 3 of 3

Job Number: M85761

Account: LEA Loureiro Eng. Associates

Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MST488-BS	T13821.D	1	09/19/09	AT	n/a	n/a	MST488
MST488-BSD	T13822.D	1	09/19/09	AT	n/a	n/a	MST488

The QC reported here applies to the following samples:

Method: SW846 8260B

M85761-8, M85761-9, M85761-12, M85761-14, M85761-17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	95%	93%	70-130%
2037-26-5	Toluene-D8	98%	99%	70-130%
460-00-4	4-Bromofluorobenzene	97%	95%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 3

Job Number: M85761  
Account: LEA Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M85768-2MS	N36594.D	5	09/18/09	WC	n/a	n/a	MSN1366
M85768-2MSD	N36595.D	5	09/18/09	WC	n/a	n/a	MSN1366
M85768-2	N36593.D	1	09/18/09	WC	n/a	n/a	MSN1366

The QC reported here applies to the following samples:

Method: SW846 8260B

M85761-1, M85761-3, M85761-5, M85761-7

CAS No.	Compound	M85768-2 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND	250	146	58* a	142	57* a	3	70-130/30
107-13-1	Acrylonitrile	ND	1250	1020	82	1020	82	0	70-130/30
71-43-2	Benzene	ND	250	222	89	223	89	0	70-130/30
108-86-1	Bromobenzene	ND	250	272	109	287	115	5	70-130/30
75-27-4	Bromodichloromethane	ND	250	230	92	238	95	3	70-130/30
75-25-2	Bromoform	ND	250	232	93	240	96	3	70-130/30
74-83-9	Bromomethane	ND	250	142	57* a	187	75	27	70-130/30
78-93-3	2-Butanone (MEK)	ND	250	185	74	187	75	1	70-130/30
104-51-8	n-Butylbenzene	ND	250	269	108	283	113	5	70-130/30
135-98-8	sec-Butylbenzene	ND	250	279	112	292	117	5	70-130/30
98-06-6	tert-Butylbenzene	ND	250	294	118	307	123	4	70-130/30
75-15-0	Carbon disulfide	ND	250	212	85	213	85	0	70-130/30
56-23-5	Carbon tetrachloride	ND	250	204	82	207	83	1	70-130/30
108-90-7	Chlorobenzene	ND	250	245	98	250	100	2	70-130/30
75-00-3	Chloroethane	ND	250	203	81	204	82	0	70-130/30
67-66-3	Chloroform	ND	250	200	80	200	80	0	70-130/30
74-87-3	Chloromethane	ND	250	250	100	245	98	2	70-130/30
95-49-8	o-Chlorotoluene	ND	250	282	113	297	119	5	70-130/30
106-43-4	p-Chlorotoluene	ND	250	270	108	285	114	5	70-130/30
96-12-8	1,2-Dibromo-3-chloropropane	ND	250	277	111	290	116	5	70-130/30
124-48-1	Dibromochloromethane	ND	250	269	108	275	110	2	70-130/30
106-93-4	1,2-Dibromoethane	ND	250	251	100	254	102	1	70-130/30
95-50-1	1,2-Dichlorobenzene	ND	250	275	110	287	115	4	70-130/30
541-73-1	1,3-Dichlorobenzene	ND	250	263	105	279	112	6	70-130/30
106-46-7	1,4-Dichlorobenzene	ND	250	280	112	302	121	8	70-130/30
75-71-8	Dichlorodifluoromethane	ND	250	256	102	261	104	2	70-130/30
75-34-3	1,1-Dichloroethane	1.4	250	213	85	214	85	0	70-130/30
107-06-2	1,2-Dichloroethane	ND	250	230	92	232	93	1	70-130/30
75-35-4	1,1-Dichloroethene	ND	250	215	86	218	87	1	70-130/30
156-59-2	cis-1,2-Dichloroethene	66.1	250	482	166* a	480	166* a	0	70-130/30
156-60-5	trans-1,2-Dichloroethene	2.3	250	195	77	198	78	2	70-130/30
78-87-5	1,2-Dichloropropane	ND	250	232	93	237	95	2	70-130/30
142-28-9	1,3-Dichloropropane	ND	250	265	106	266	106	0	70-130/30
594-20-7	2,2-Dichloropropane	ND	250	169	68* a	171	68* a	1	70-130/30
563-58-6	1,1-Dichloropropene	ND	250	224	90	229	92	2	70-130/30
10061-01-5	cis-1,3-Dichloropropene	ND	250	178	71	181	72	2	70-130/30

# Matrix Spike/Matrix Spike Duplicate Summary

Page 2 of 3

Job Number: M85761  
Account: LEA Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M85768-2MS	N36594.D	5	09/18/09	WC	n/a	n/a	MSN1366
M85768-2MSD	N36595.D	5	09/18/09	WC	n/a	n/a	MSN1366
M85768-2	N36593.D	1	09/18/09	WC	n/a	n/a	MSN1366

The QC reported here applies to the following samples:

Method: SW846 8260B

M85761-1, M85761-3, M85761-5, M85761-7

CAS No.	Compound	M85768-2 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	ND	250	175	70	185	74	6	70-130/30
100-41-4	Ethylbenzene	ND	250	257	103	259	104	1	70-130/30
76-13-1	Freon 113	ND	250	215	86	215	86	0	70-130/30
87-68-3	Hexachlorobutadiene	ND	250	294	118	293	117	0	70-130/30
591-78-6	2-Hexanone	ND	250	237	95	265	106	11	70-130/30
98-82-8	Isopropylbenzene	ND	250	330	132* b	349	140* b	6	70-130/30
99-87-6	p-Isopropyltoluene	ND	250	287	115	298	119	4	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND	250	185	74	192	77	4	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	250	229	92	240	96	5	70-130/30
74-95-3	Methylene bromide	ND	250	232	93	233	93	0	70-130/30
75-09-2	Methylene chloride	ND	250	201	80	207	83	3	70-130/30
91-20-3	Naphthalene	ND	250	284	114	313	125	10	70-130/30
103-65-1	n-Propylbenzene	ND	250	277	111	292	117	5	70-130/30
100-42-5	Styrene	ND	250	233	93	239	96	3	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND	250	244	98	249	100	2	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND	250	313	125	323	129	3	70-130/30
127-18-4	Tetrachloroethene	ND	250	256	102	255	102	0	70-130/30
109-99-9	Tetrahydrofuran	ND	250	194	78	212	85	9	70-130/30
108-88-3	Toluene	ND	250	220	88	225	90	2	70-130/30
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	250	135	54* a	139	56* a	3	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND	250	274	110	295	118	7	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND	250	287	115	301	120	5	70-130/30
71-55-6	1,1,1-Trichloroethane	ND	250	190	76	192	77	1	70-130/30
79-00-5	1,1,2-Trichloroethane	ND	250	230	92	233	93	1	70-130/30
79-01-6	Trichloroethene	ND	250	226	90	230	92	2	70-130/30
75-69-4	Trichlorofluoromethane	ND	250	200	80	201	80	0	70-130/30
96-18-4	1,2,3-Trichloropropane	ND	250	240	96	249	100	4	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND	250	280	112	292	117	4	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND	250	288	115	303	121	5	70-130/30
75-01-4	Vinyl chloride	91.4	250	554	185* a	568	191* a	2	70-130/30
	m,p-Xylene	ND	500	496	99	502	100	1	70-130/30
95-47-6	o-Xylene	ND	250	267	107	266	106	0	70-130/30

## Matrix Spike/Matrix Spike Duplicate Summary

Page 3 of 3

Job Number: M85761

Account: LEA Loureiro Eng. Associates

Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M85768-2MS	N36594.D	5	09/18/09	WC	n/a	n/a	MSN1366
M85768-2MSD	N36595.D	5	09/18/09	WC	n/a	n/a	MSN1366
M85768-2	N36593.D	1	09/18/09	WC	n/a	n/a	MSN1366

The QC reported here applies to the following samples:

Method: SW846 8260B

M85761-1, M85761-3, M85761-5, M85761-7

CAS No.	Surrogate Recoveries	MS	MSD	M85768-2	Limits
1868-53-7	Dibromofluoromethane	90%	90%	93%	70-130%
2037-26-5	Toluene-D8	97%	97%	92%	70-130%
460-00-4	4-Bromofluorobenzene	103%	107%	89%	70-130%

- (a) Outside control limits due to possible matrix interference. Refer to Blank Spike.  
(b) Outside control limits. Blank Spike meets program technical requirements.

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 3

Job Number: M85761  
Account: LEA Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M85861-12MS	T13845.D	5	09/20/09	AT	n/a	n/a	MST488
M85861-12MSD	T13846.D	5	09/20/09	AT	n/a	n/a	MST488
M85861-12	T13844.D	1	09/19/09	AT	n/a	n/a	MST488

The QC reported here applies to the following samples:

Method: SW846 8260B

M85761-8, M85761-9, M85761-12, M85761-14, M85761-17

CAS No.	Compound	M85861-12 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		250	288	115	271	108	6	70-130/30
107-13-1	Acrylonitrile	ND		1250	1150	92	1080	86	6	70-130/30
71-43-2	Benzene	4.6		250	285	112	267	105	7	70-130/30
108-86-1	Bromobenzene	ND		250	285	114	272	109	5	70-130/30
75-27-4	Bromodichloromethane	ND		250	260	104	247	99	5	70-130/30
75-25-2	Bromoform	ND		250	193	77	184	74	5	70-130/30
74-83-9	Bromomethane	ND		250	239	96	226	90	6	70-130/30
78-93-3	2-Butanone (MEK)	ND		250	221	88	219	88	1	70-130/30
104-51-8	n-Butylbenzene	ND		250	299	120	281	112	6	70-130/30
135-98-8	sec-Butylbenzene	ND		250	303	121	286	114	6	70-130/30
98-06-6	tert-Butylbenzene	ND		250	307	123	286	114	7	70-130/30
75-15-0	Carbon disulfide	ND		250	256	102	243	97	5	70-130/30
56-23-5	Carbon tetrachloride	69.1		250	323	102	305	94	6	70-130/30
108-90-7	Chlorobenzene	2.9		250	287	114	274	108	5	70-130/30
75-00-3	Chloroethane	ND		250	271	108	248	99	9	70-130/30
67-66-3	Chloroform	50.0		250	313	105	287	95	9	70-130/30
74-87-3	Chloromethane	ND		250	248	99	238	95	4	70-130/30
95-49-8	o-Chlorotoluene	ND		250	296	118	274	110	8	70-130/30
106-43-4	p-Chlorotoluene	ND		250	298	119	279	112	7	70-130/30
96-12-8	1,2-Dibromo-3-chloropropane	ND		250	225	90	218	87	3	70-130/30
124-48-1	Dibromochloromethane	ND		250	240	96	232	93	3	70-130/30
106-93-4	1,2-Dibromoethane	ND		250	286	114	272	109	5	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		250	286	114	269	108	6	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		250	289	116	271	108	6	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		250	281	112	264	106	6	70-130/30
75-71-8	Dichlorodifluoromethane	ND		250	236	94	249	100	5	70-130/30
75-34-3	1,1-Dichloroethane	14.5		250	282	107	260	98	8	70-130/30
107-06-2	1,2-Dichloroethane	2.4		250	256	101	239	95	7	70-130/30
75-35-4	1,1-Dichloroethene	119		250	379	104	354	94	7	70-130/30
156-59-2	cis-1,2-Dichloroethene	1180	E	250	1290	44* a	1230	20* a	5	70-130/30
156-60-5	trans-1,2-Dichloroethene	11.9		250	288	110	267	102	8	70-130/30
78-87-5	1,2-Dichloropropane	ND		250	365	146* b	341	136* b	7	70-130/30
142-28-9	1,3-Dichloropropane	ND		250	272	109	255	102	6	70-130/30
594-20-7	2,2-Dichloropropane	ND		250	209	84	193	77	8	70-130/30
563-58-6	1,1-Dichloropropene	ND		250	295	118	280	112	5	70-130/30
10061-01-5	cis-1,3-Dichloropropene	ND		250	292	117	273	109	7	70-130/30



# Matrix Spike/Matrix Spike Duplicate Summary

Page 2 of 3

Job Number: M85761  
Account: LEA Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M85861-12MS	T13845.D	5	09/20/09	AT	n/a	n/a	MST488
M85861-12MSD	T13846.D	5	09/20/09	AT	n/a	n/a	MST488
M85861-12	T13844.D	1	09/19/09	AT	n/a	n/a	MST488

The QC reported here applies to the following samples:

Method: SW846 8260B

M85761-8, M85761-9, M85761-12, M85761-14, M85761-17

CAS No.	Compound	M85861-12 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	ND		250	282	113	268	107	5	70-130/30
100-41-4	Ethylbenzene	ND		250	304	122	290	116	5	70-130/30
76-13-1	Freon 113	ND		250	274	110	260	104	5	70-130/30
87-68-3	Hexachlorobutadiene	ND		250	258	103	248	99	4	70-130/30
591-78-6	2-Hexanone	ND		250	250	100	251	100	0	70-130/30
98-82-8	Isopropylbenzene	1.2		250	308	123	293	117	5	70-130/30
99-87-6	p-Isopropyltoluene	ND		250	298	119	283	113	5	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		250	274	110	258	103	6	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		250	260	104	245	98	6	70-130/30
74-95-3	Methylene bromide	ND		250	260	104	249	100	4	70-130/30
75-09-2	Methylene chloride	1.5		250	268	107	251	100	7	70-130/30
91-20-3	Naphthalene	16.3		250	294	111	323	123	9	70-130/30
103-65-1	n-Propylbenzene	ND		250	304	122	289	116	5	70-130/30
100-42-5	Styrene	ND		250	276	110	264	106	4	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	2.5		250	285	113	271	107	5	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		250	266	106	256	102	4	70-130/30
127-18-4	Tetrachloroethene	3610	E	250	3750	56* a	3700	36* a	1	70-130/30
109-99-9	Tetrahydrofuran	ND		250	248	99	250	100	1	70-130/30
108-88-3	Toluene	4.7		250	288	113	271	107	6	70-130/30
110-57-6	Trans-1,4-Dichloro-2-Butene	ND		250	228	91	214	86	6	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		250	246	98	311	124	23	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		250	260	104	275	110	6	70-130/30
71-55-6	1,1,1-Trichloroethane	4.3		250	268	105	247	97	8	70-130/30
79-00-5	1,1,2-Trichloroethane	10.3		250	279	107	268	103	4	70-130/30
79-01-6	Trichloroethene	7210	E	250	19700	4996* a	19200	4796* a	3	70-130/30
75-69-4	Trichlorofluoromethane	ND		250	265	106	245	98	8	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		250	253	101	240	96	5	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		250	300	120	283	113	6	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		250	293	117	274	110	7	70-130/30
75-01-4	Vinyl chloride	109		250	330	88	316	83	4	70-130/30
	m,p-Xylene	ND		500	617	123	584	117	5	70-130/30
95-47-6	o-Xylene	1.8		250	287	114	274	109	5	70-130/30

## Matrix Spike/Matrix Spike Duplicate Summary

Page 3 of 3

Job Number: M85761

Account: LEA Loureiro Eng. Associates

Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M85861-12MS	T13845.D	5	09/20/09	AT	n/a	n/a	MST488
M85861-12MSD	T13846.D	5	09/20/09	AT	n/a	n/a	MST488
M85861-12	T13844.D	1	09/19/09	AT	n/a	n/a	MST488

The QC reported here applies to the following samples:

Method: SW846 8260B

M85761-8, M85761-9, M85761-12, M85761-14, M85761-17

CAS No.	Surrogate Recoveries	MS	MSD	M85861-12	Limits
1868-53-7	Dibromofluoromethane	95%	94%	94%	70-130%
2037-26-5	Toluene-D8	100%	100%	105%	70-130%
460-00-4	4-Bromofluorobenzene	97%	98%	104%	70-130%

(a) Outside control limits due to high level in sample relative to spike amount.

(b) Outside control limits due to possible matrix interference. Refer to Blank Spike.

# Volatile Internal Standard Area Summary

Page 1 of 1

Job Number: M85761  
Account: LEA Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

Check Std:	MSN1366-CC1359	Injection Date:	09/18/09
Lab File ID:	N36580A.D	Injection Time:	09:30
Instrument ID:	GCMSN	Method:	SW846 8260B

	IS 1		IS 2		IS 3		IS 4		IS 5	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	159553	8.64	281507	9.50	166927	12.75	96934	15.31	98396	6.22
Upper Limit <sup>a</sup>	319106	9.14	563014	10.00	333854	13.25	193868	15.81	196792	6.72
Lower Limit <sup>b</sup>	79777	8.14	140754	9.00	83464	12.25	48467	14.81	49198	5.72

Lab	IS 1		IS 2		IS 3		IS 4		IS 5	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
MSN1365-BS	160822	8.64	291255	9.50	160949	12.75	91863	15.31	107292	6.22
MSN1366-BS	160822	8.64	291255	9.50	160949	12.75	91863	15.31	107292	6.22
MSN1365-BSD	157892	8.64	286097	9.50	159978	12.75	89575	15.31	110261	6.22
MSN1366-BSD	157892	8.64	286097	9.50	159978	12.75	89575	15.31	110261	6.22
MSN1365-MB	150235	8.64	278024	9.50	134443	12.75	86776	15.31	109208	6.22
MSN1366-MB	150235	8.64	278024	9.50	134443	12.75	86776	15.31	109208	6.22
ZZZZZZ	124307	8.64	226032	9.50	112811	12.75	74490	15.31	83665	6.22
M85872-1	123301	8.64	229994	9.50	111270	12.75	70501	15.31	80599	6.22
ZZZZZZ	126892	8.64	233336	9.50	110976	12.75	69336	15.31	78044	6.22
ZZZZZZ	129635	8.64	233620	9.50	121913	12.75	74492	15.31	80295	6.22
M85872-1DUP	126597	8.64	230897	9.50	113871	12.75	70648	15.31	84342	6.22
ZZZZZZ	124912	8.64	228445	9.50	110909	12.75	70927	15.31	77100	6.22
M85768-2	123331	8.64	227701	9.50	109785	12.75	71392	15.31	79301	6.22
M85768-2MS	127742	8.64	229850	9.50	126789	12.75	78494	15.31	74649	6.22
M85768-2MSD	133206	8.64	238732	9.50	132844	12.75	78741	15.31	81420	6.22
ZZZZZZ	132310	8.64	243164	9.50	117983	12.75	75144	15.31	84672	6.22
ZZZZZZ	126384	8.64	230885	9.50	110979	12.75	72008	15.31	84495	6.22
ZZZZZZ	124416	8.64	227142	9.50	109102	12.75	69753	15.31	85877	6.22
ZZZZZZ	122842	8.64	227670	9.50	109982	12.75	73126	15.31	79913	6.22
ZZZZZZ	121390	8.64	226307	9.50	107384	12.75	71940	15.31	78086	6.22
M85761-1	121895	8.64	226236	9.50	110750	12.75	69986	15.31	89270	6.22
M85761-3	120259	8.64	219354	9.50	104496	12.75	70197	15.31	74455	6.22
M85761-5	121413	8.64	221312	9.50	101376	12.75	68724	15.31	66510	6.22
M85761-7	123156	8.64	218445	9.50	103715	12.75	67368	15.31	78187	6.22

IS 1 = Pentafluorobenzene  
IS 2 = 1,4-Difluorobenzene  
IS 3 = Chlorobenzene-D5  
IS 4 = 1,4-Dichlorobenzene-d4  
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.  
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

# Volatile Internal Standard Area Summary

Page 1 of 1

Job Number: M85761  
Account: LEA Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

Check Std:	MSN1365-CC1359	Injection Date:	09/18/09
Lab File ID:	N36580.D	Injection Time:	09:30
Instrument ID:	GCMSN	Method:	SW846 8260B

	IS 1		IS 2		IS 3		IS 4		IS 5	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	159553	8.64	281507	9.50	166927	12.75	96934	15.31	98396	6.22
Upper Limit <sup>a</sup>	319106	9.14	563014	10.00	333854	13.25	193868	15.81	196792	6.72
Lower Limit <sup>b</sup>	79777	8.14	140754	9.00	83464	12.25	48467	14.81	49198	5.72

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSN1365-BS	160822	8.64	291255	9.50	160949	12.75	91863	15.31	107292	6.22
MSN1366-BS	160822	8.64	291255	9.50	160949	12.75	91863	15.31	107292	6.22
MSN1365-BSD	157892	8.64	286097	9.50	159978	12.75	89575	15.31	110261	6.22
MSN1366-BSD	157892	8.64	286097	9.50	159978	12.75	89575	15.31	110261	6.22
MSN1365-MB	150235	8.64	278024	9.50	134443	12.75	86776	15.31	109208	6.22
MSN1366-MB	150235	8.64	278024	9.50	134443	12.75	86776	15.31	109208	6.22
ZZZZZZ	124307	8.64	226032	9.50	112811	12.75	74490	15.31	83665	6.22
M85872-1	123301	8.64	229994	9.50	111270	12.75	70501	15.31	80599	6.22
ZZZZZZ	126892	8.64	233336	9.50	110976	12.75	69336	15.31	78044	6.22
ZZZZZZ	129635	8.64	233620	9.50	121913	12.75	74492	15.31	80295	6.22
M85872-1DUP	126597	8.64	230897	9.50	113871	12.75	70648	15.31	84342	6.22
ZZZZZZ	124912	8.64	228445	9.50	110909	12.75	70927	15.31	77100	6.22
M85768-2	123331	8.64	227701	9.50	109785	12.75	71392	15.31	79301	6.22
M85768-2MS	127742	8.64	229850	9.50	126789	12.75	78494	15.31	74649	6.22
M85768-2MSD	133206	8.64	238732	9.50	132844	12.75	78741	15.31	81420	6.22
ZZZZZZ	132310	8.64	243164	9.50	117983	12.75	75144	15.31	84672	6.22
ZZZZZZ	126384	8.64	230885	9.50	110979	12.75	72008	15.31	84495	6.22
ZZZZZZ	124416	8.64	227142	9.50	109102	12.75	69753	15.31	85877	6.22
ZZZZZZ	122842	8.64	227670	9.50	109982	12.75	73126	15.31	79913	6.22
ZZZZZZ	121390	8.64	226307	9.50	107384	12.75	71940	15.31	78086	6.22
ZZZZZZ	123423	8.64	224441	9.50	106033	12.75	71362	15.31	75809	6.22
M85761-1	121895	8.64	226236	9.50	110750	12.75	69986	15.31	89270	6.22
M85761-3	120259	8.64	219354	9.50	104496	12.75	70197	15.31	74455	6.22
M85761-5	121413	8.64	221312	9.50	101376	12.75	68724	15.31	66510	6.22
M85761-7	123156	8.64	218445	9.50	103715	12.75	67368	15.31	78187	6.22

IS 1 = Pentafluorobenzene  
IS 2 = 1,4-Difluorobenzene  
IS 3 = Chlorobenzene-D5  
IS 4 = 1,4-Dichlorobenzene-d4  
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.  
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

# Volatile Internal Standard Area Summary

Page 1 of 1

Job Number: M85761  
Account: LEA Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

Check Std:	MST488-CC487	Injection Date:	09/19/09
Lab File ID:	T13820.D	Injection Time:	12:50
Instrument ID:	GCMST	Method:	SW846 8260B

	IS 1		IS 2		IS 3		IS 4		IS 5	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	396883	8.71	616450	9.60	478280	12.92	344996	15.52	106337	6.20
Upper Limit <sup>a</sup>	793766	9.21	1232900	10.10	956560	13.42	689992	16.02	212674	6.70
Lower Limit <sup>b</sup>	198442	8.21	308225	9.10	239140	12.42	172498	15.02	53169	5.70

Lab	IS 1		IS 2		IS 3		IS 4		IS 5	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
MST488-BS	417512	8.71	648696	9.60	483559	12.92	340472	15.52	110160	6.20
MST488-BSD	426460	8.71	648583	9.60	487908	12.92	350138	15.52	118044	6.21
MST488-MB	375060	8.71	568190	9.60	424749	12.92	273799	15.52	109054	6.21
ZZZZZZ	355772	8.71	543139	9.59	400932	12.92	250762	15.52	97207	6.21
ZZZZZZ	328726	8.71	514320	9.60	388086	12.92	238204	15.52	99209	6.21
ZZZZZZ	348937	8.71	530822	9.60	408295	12.92	276473	15.52	98121	6.21
M85761-8	329206	8.71	513099	9.60	389428	12.92	244452	15.52	99145	6.21
M85761-9	310499	8.71	484033	9.60	378570	12.92	232754	15.52	87289	6.20
M85761-12	305093	8.71	471063	9.60	369595	12.92	220591	15.52	86496	6.20
M85761-14	307367	8.71	473481	9.59	376041	12.92	230462	15.52	92657	6.20
M85761-17	314919	8.71	475582	9.59	377581	12.92	233357	15.52	95749	6.21
ZZZZZZ	343919	8.71	537757	9.60	465229	12.92	282673	15.52	95402	6.21
ZZZZZZ	357863	8.71	564505	9.60	462646	12.92	285858	15.52	87878	6.21
ZZZZZZ	364303	8.71	569124	9.60	462989	12.92	281200	15.52	81542	6.21
ZZZZZZ	384811	8.71	598161	9.60	488626	12.91	298752	15.52	88715	6.21
ZZZZZZ	362856	8.70	566561	9.60	453497	12.91	277095	15.52	84036	6.20
ZZZZZZ	347062	8.70	525904	9.59	411586	12.91	250043	15.51	77913	6.20
ZZZZZZ	340113	8.70	514102	9.59	399076	12.91	243618	15.52	68088	6.20
ZZZZZZ	348209	8.70	537282	9.59	439402	12.91	268885	15.52	78429	6.20
ZZZZZZ	349049	8.70	528373	9.59	434032	12.91	272933	15.51	83794	6.20
ZZZZZZ	357969	8.70	548011	9.59	441401	12.91	279022	15.51	82439	6.21
M85861-12	367637	8.70	551565	9.59	451522	12.91	279794	15.51	88918	6.20
M85861-12MS	367715	8.70	563729	9.59	440129	12.91	306599	15.51	82855	6.20
M85861-12MSD	386130	8.70	582271	9.59	450728	12.91	314761	15.51	90635	6.20

IS 1 = Pentafluorobenzene  
IS 2 = 1,4-Difluorobenzene  
IS 3 = Chlorobenzene-D5  
IS 4 = 1,4-Dichlorobenzene-d4  
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.  
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

# Volatile Surrogate Recovery Summary

Page 1 of 1

Job Number: M85761  
Account: LEA Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

Method: SW846 8260B                      Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
M85761-1	N36602.D	93.0	93.0	93.0
M85761-3	N36603.D	91.0	92.0	88.0
M85761-5	N36604.D	93.0	90.0	89.0
M85761-7	N36605.D	90.0	91.0	89.0
M85761-8	T13828.D	98.0	97.0	99.0
M85761-9	T13829.D	101.0	99.0	100.0
M85761-12	T13830.D	102.0	98.0	102.0
M85761-14	T13831.D	100.0	92.0	99.0
M85761-17	T13832.D	99.0	100.0	99.0
M85768-2MS	N36594.D	90.0	97.0	103.0
M85768-2MSD	N36595.D	90.0	97.0	107.0
M85861-12MS	T13845.D	95.0	100.0	97.0
M85861-12MSD	T13846.D	94.0	100.0	98.0
MSN1366-BS	N36581A.D	89.0	96.0	110.0
MSN1366-BSD	N36582A.D	91.0	97.0	111.0
MSN1366-MB	N36584A.D	91.0	92.0	95.0
MST488-BS	T13821.D	95.0	98.0	97.0
MST488-BSD	T13822.D	93.0	99.0	95.0
MST488-MB	T13824.D	94.0	98.0	99.0

Surrogate  
Compounds

Recovery  
Limits

S1 = Dibromofluoromethane      70-130%  
S2 = Toluene-D8                      70-130%  
S3 = 4-Bromofluorobenzene      70-130%



## GC Semi-volatiles

### QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries

## Method Blank Summary

Page 1 of 1

Job Number: M85761  
Account: LEA Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19489-MB	BC32014.D	1	09/22/09	KD	09/16/09	OP19489	GBC1678

The QC reported here applies to the following samples:

Method: CT-ETPH 7/06

M85761-1, M85761-3, M85761-5, M85761-7, M85761-9, M85761-11, M85761-14, M85761-17

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	ND	0.080	mg/l	

CAS No.	Surrogate Recoveries	Limits
3386-33-2	1-Chlorooctadecane	50% 50-149%



## Method Blank Summary

Page 1 of 1

Job Number: M85761  
Account: LEA Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19488-MB	EF70226.D	1	09/17/09	CZ	09/16/09	OP19488	GEF3230

The QC reported here applies to the following samples:

Method: SW846 8082

M85761-1, M85761-3, M85761-5, M85761-7, M85761-9, M85761-12, M85761-14, M85761-17

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	ug/l	

CAS No.	Surrogate Recoveries	Limits
877-09-8	Tetrachloro-m-xylene	85% 30-150%
877-09-8	Tetrachloro-m-xylene	82% 30-150%
2051-24-3	Decachlorobiphenyl	44% 30-150%
2051-24-3	Decachlorobiphenyl	46% 30-150%

## Blank Spike Summary

Page 1 of 1

Job Number: M85761

Account: LEA Loureiro Eng. Associates

Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19489-BS	BC32016.D	1	09/22/09	KD	09/16/09	OP19489	GBC1678

The QC reported here applies to the following samples:

Method: CT-ETPH 7/06

M85761-1, M85761-3, M85761-5, M85761-7, M85761-9, M85761-11, M85761-14, M85761-17

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	CT-DRO (C9-C36)	0.7	0.445	64	60-120

CAS No.	Surrogate Recoveries	BSP	Limits
3386-33-2	1-Chlorooctadecane	56%	50-149%

## Blank Spike Summary

Page 1 of 1

Job Number: M85761

Account: LEA Loureiro Eng. Associates

Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19488-BS	EF70227.D	1	09/17/09	CZ	09/16/09	OP19488	GEF3230

The QC reported here applies to the following samples:

Method: SW846 8082

M85761-1, M85761-3, M85761-5, M85761-7, M85761-9, M85761-12, M85761-14, M85761-17

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
12674-11-2	Aroclor 1016	2	2.3	115	40-140
11104-28-2	Aroclor 1221		ND		40-140
11141-16-5	Aroclor 1232		ND		40-140
53469-21-9	Aroclor 1242		ND		40-140
12672-29-6	Aroclor 1248		ND		40-140
11097-69-1	Aroclor 1254		ND		40-140
11096-82-5	Aroclor 1260	2	2.0	100	40-140
37324-23-5	Aroclor 1262		ND		40-140
11100-14-4	Aroclor 1268		ND		40-140

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	90%	30-150%
877-09-8	Tetrachloro-m-xylene	89%	30-150%
2051-24-3	Decachlorobiphenyl	51%	30-150%
2051-24-3	Decachlorobiphenyl	50%	30-150%

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: M85761

Account: LEA Loureiro Eng. Associates

Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19489-MS	BC32018.D	1	09/22/09	KD	09/16/09	OP19489	GBC1678
OP19489-MSD	BC32020.D	1	09/22/09	KD	09/16/09	OP19489	GBC1678
M85833-11	BC32046.D	1	09/23/09	KD	09/16/09	OP19489	GBC1678

The QC reported here applies to the following samples:

Method: CT-ETPH 7/06

M85761-1, M85761-3, M85761-5, M85761-7, M85761-9, M85761-11, M85761-14, M85761-17

CAS No.	Compound	M85833-11 mg/l	Spike Q	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	CT-DRO (C9-C36)	ND	0.7	0.472	67	0.471	67	0	50-129/26

CAS No.	Surrogate Recoveries	MS	MSD	M85833-11	Limits
3386-33-2	1-Chlorooctadecane	53%	64%	63%	50-149%

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: M85761

Account: LEA Loureiro Eng. Associates

Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19488-MS	EF70228.D	1	09/17/09	CZ	09/16/09	OP19488	GEF3230
OP19488-MSD	EF70229.D	1	09/17/09	CZ	09/16/09	OP19488	GEF3230
M85833-10	EF70230.D	1	09/17/09	CZ	09/16/09	OP19488	GEF3230

The QC reported here applies to the following samples:

Method: SW846 8082

M85761-1, M85761-3, M85761-5, M85761-7, M85761-9, M85761-12, M85761-14, M85761-17

CAS No.	Compound	M85833-10 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	ND	2	2.2	110	2.1	105	5	40-140/50
11104-28-2	Aroclor 1221	ND		ND		ND		nc	40-140/50
11141-16-5	Aroclor 1232	ND		ND		ND		nc	40-140/50
53469-21-9	Aroclor 1242	ND		ND		ND		nc	40-140/50
12672-29-6	Aroclor 1248	ND		ND		ND		nc	40-140/50
11097-69-1	Aroclor 1254	ND		ND		ND		nc	40-140/50
11096-82-5	Aroclor 1260	ND	2	2.1	105	1.9	95	10	40-140/50
37324-23-5	Aroclor 1262	ND		ND		ND		nc	40-140/50
11100-14-4	Aroclor 1268	ND		ND		ND		nc	40-140/50

CAS No.	Surrogate Recoveries	MS	MSD	M85833-10	Limits
877-09-8	Tetrachloro-m-xylene	82%	73%	80%	30-150%
877-09-8	Tetrachloro-m-xylene	82%	84%	89%	30-150%
2051-24-3	Decachlorobiphenyl	45%	47%	48%	30-150%
2051-24-3	Decachlorobiphenyl	46%	48%	46%	30-150%

## Semivolatile Surrogate Recovery Summary

Page 1 of 1

Job Number: M85761

Account: LEA Loureiro Eng. Associates

Project: UTC: 2009 Quarterly GW-Willow Pond

Method: CT-ETPH 7/06

Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 <sup>a</sup>
M85761-1	BC32048.D	63.0
M85761-3	BC32050.D	61.0
M85761-5	BC32052.D	72.0
M85761-7	BC32054.D	74.0
M85761-9	BC32056.D	59.0
M85761-11	BC32058.D	70.0
M85761-14	BC32060.D	62.0
M85761-17	BC32062.D	75.0
OP19489-BS	BC32016.D	56.0
OP19489-MB	BC32014.D	50.0
OP19489-MS	BC32018.D	53.0
OP19489-MSD	BC32020.D	64.0

Surrogate Compounds	Recovery Limits
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S1 = 1-Chlorooctadecane	50-149%
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(a) Recovery from GC signal #1

6.4.1

6

# Semivolatile Surrogate Recovery Summary

Page 1 of 1

Job Number: M85761

Account: LEA Loureiro Eng. Associates

Project: UTC: 2009 Quarterly GW-Willow Pond

Method: SW846 8082

Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 <sup>a</sup>	S1 <sup>b</sup>	S2 <sup>a</sup>	S2 <sup>b</sup>
M85761-1	EF70242.D	74.0	79.0	54.0	56.0
M85761-3	EF70243.D	77.0	79.0	72.0	73.0
M85761-5	EF70244.D	91.0	93.0	85.0	90.0
M85761-7	EF70245.D	91.0	103.0	83.0	85.0
M85761-9	EF70246.D	81.0	96.0	59.0	64.0
M85761-12	EF70250.D	80.0	88.0	76.0	80.0
M85761-14	EF70251.D	82.0	98.0	95.0	99.0
M85761-17	EF70252.D	88.0	91.0	69.0	71.0
OP19488-BS	EF70227.D	90.0	89.0	51.0	50.0
OP19488-MB	EF70226.D	85.0	82.0	44.0	46.0
OP19488-MS	EF70228.D	82.0	82.0	45.0	46.0
OP19488-MSD	EF70229.D	73.0	84.0	47.0	48.0

Surrogate  
Compounds

Recovery  
Limits

S1 = Tetrachloro-m-xylene

30-150%

S2 = Decachlorobiphenyl

30-150%

(a) Recovery from GC signal #1

(b) Recovery from GC signal #2

6.4.2

6



## Metals Analysis

### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries



BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: M85761  
Account: LEA - Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14096  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date: 09/14/09

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	27	40		
Antimony	6.0	1.4	1.6		
Arsenic	10	1	1.8	-0.30	<10
Barium	200	.57	1.1	0.50	<200
Beryllium	4.0	.15	.4		
Boron	100	.65	2.3		
Cadmium	4.0	.24	1.9	0.10	<4.0
Calcium	5000	7.6	15		
Chromium	10	.81	1.1	-0.30	<10
Cobalt	50	.25	.3		
Copper	25	2.2	4	0.80	<25
Gold	50	1.1	4.2		
Iron	100	3.7	13		
Lead	5.0	1.1	2.7	0.70	<5.0
Magnesium	5000	37	77		
Manganese	15	.12	1.1		
Molybdenum	100	.22	.8		
Nickel	40	.24	1.3	0.20	<40
Palladium	50	2.2	4		
Platinum	50	9.3	13		
Potassium	5000	39	46		
Selenium	10	1.9	3.5	1.1	<10
Silicon	100	8.9	36		
Silver	5.0	.54	1.3	0.10	<5.0
Sodium	5000	61	160		
Strontium	10	.24	.3		
Thallium	10	1.2	1.3		
Tin	100	.65	1.3		
Titanium	50	.74	.8		
Tungsten	100	5.6	8		
Vanadium	30	.68	1.6		
Zinc	20	.74	1.5	1.1	<20

Associated samples MP14096: M85761-2, M85761-4, M85761-6, M85761-10, M85761-13, M85761-15, M85761-16, M85761-18

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: M85761  
Account: LEA - Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14096  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date:

Metal

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

7.1.1

7

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: M85761  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14096  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date:

09/14/09

09/14/09

Metal	M85739-2 Original MS		Spikelot MPICP	% Rec	QC Limits	M85739-2 Original DUP		RPD	QC Limits
Aluminum	anr								
Antimony									
Arsenic	0.0	539	500	107.8	75-125	0.0	0.0	NC	0-20
Barium	118	2200	2000	104.1	75-125	118	117	0.9	0-20
Beryllium									
Boron	anr								
Cadmium	0.30	543	500	108.5	75-125	0.30	0.30	0.0	0-20
Calcium									
Chromium	0.0	506	500	101.2	75-125	0.0	0.0	NC	0-20
Cobalt	anr								
Copper	0.0	521	500	104.2	75-125	0.0	0.0	NC	0-20
Gold									
Iron	anr								
Lead	0.0	1000	1000	100.0	75-125	0.0	0.0	NC	0-20
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	2.0	502	500	100.0	75-125	2.0	1.9	5.1	0-20
Palladium									
Platinum									
Potassium									
Selenium	0.0	550	500	110.0	75-125	0.0	0.0	NC	0-20
Silicon									
Silver	0.0	213	200	106.5	75-125	0.0	0.0	NC	0-20
Sodium									
Strontium									
Thallium									
Tin	anr								
Titanium	anr								
Tungsten									
Vanadium									
Zinc	16.8	537	500	104.0	75-125	16.8	15.9	5.5	0-20

Associated samples MP14096: M85761-2, M85761-4, M85761-6, M85761-10, M85761-13, M85761-15, M85761-16, M85761-18

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: M85761  
Account: LEA - Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14096  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date:

Metal

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(N) Matrix Spike Rec. outside of QC limits  
(anr) Analyte not requested

## SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: M85761  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14096  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 09/14/09

09/14/09

Metal	BSP Result	Spikelot MPICP	% Rec	QC Limits	BSD Result	Spikelot MPICP	% Rec	BSD RPD	QC Limit
Aluminum	anr								
Antimony									
Arsenic	520	500	104.0	80-120	518	500	103.6	0.4	20
Barium	2030	2000	101.5	80-120	2010	2000	100.5	1.0	20
Beryllium									
Boron	anr								
Cadmium	526	500	105.2	80-120	513	500	102.6	2.5	20
Calcium									
Chromium	497	500	99.4	80-120	488	500	97.6	1.8	20
Cobalt	anr								
Copper	505	500	101.0	80-120	494	500	98.8	2.2	20
Gold									
Iron	anr								
Lead	1000	1000	100.0	80-120	994	1000	99.4	0.6	20
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	496	500	99.2	80-120	493	500	98.6	0.6	20
Palladium									
Platinum									
Potassium									
Selenium	533	500	106.6	80-120	524	500	104.8	1.7	20
Silicon									
Silver	206	200	103.0	80-120	203	200	101.5	1.5	20
Sodium									
Strontium									
Thallium									
Tin	anr								
Titanium	anr								
Tungsten									
Vanadium									
Zinc	517	500	103.4	80-120	505	500	101.0	2.3	20

Associated samples MP14096: M85761-2, M85761-4, M85761-6, M85761-10, M85761-13, M85761-15, M85761-16, M85761-18

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: M85761  
Account: LEA - Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14096  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date:

Metal

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

# SERIAL DILUTION RESULTS SUMMARY

Login Number: M85761  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14096  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 09/14/09

Metal	M85739-2 Original	SDL 1:5	%DIF	QC Limits
Aluminum	anr			
Antimony				
Arsenic	0.00	0.00	NC	0-10
Barium	118	119	1.1	0-10
Beryllium				
Boron	anr			
Cadmium	0.300	0.00	100.0 (a)	0-10
Calcium				
Chromium	0.00	0.00	NC	0-10
Cobalt	anr			
Copper	0.00	0.00	NC	0-10
Gold				
Iron	anr			
Lead	0.00	0.00	NC	0-10
Magnesium	anr			
Manganese	anr			
Molybdenum	anr			
Nickel	2.00	2.70	35.0 (a)	0-10
Palladium				
Platinum				
Potassium				
Selenium	0.00	0.00	NC	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium				
Strontium				
Thallium				
Tin	anr			
Titanium	anr			
Tungsten				
Vanadium				
Zinc	16.8	18.6	10.7 (a)	0-10

Associated samples MP14096: M85761-2, M85761-4, M85761-6, M85761-10, M85761-13, M85761-15, M85761-16, M85761-18

SERIAL DILUTION RESULTS SUMMARY

Login Number: M85761  
Account: LEA - Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14096  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date:

Metal

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

7.1.4

7



BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: M85761  
Account: LEA - Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14104  
Matrix Type: AQUEOUS

Methods: SW846 7470A  
Units: ug/l

Prep Date: 09/15/09

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.20	.035	.048	0.023	<0.20

Associated samples MP14104: M85761-2, M85761-4, M85761-6, M85761-10, M85761-13, M85761-15, M85761-16, M85761-18

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: M85761  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14104  
 Matrix Type: AQUEOUS

Methods: SW846 7470A  
 Units: ug/l

Prep Date: 09/15/09 09/15/09

Metal	M85739-2 Original MS		Spikelot HGRWS1    % Rec		QC Limits	M85739-2 Original DUP		RPD	QC Limits
Mercury	0.0	3.1	3	103.3	75-125	0.0	0.0	NC	0-20

Associated samples MP14104: M85761-2, M85761-4, M85761-6, M85761-10, M85761-13, M85761-15, M85761-16, M85761-18

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: M85761  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14104  
 Matrix Type: AQUEOUS

Methods: SW846 7470A  
 Units: ug/l

Prep Date: 09/15/09 09/15/09

Metal	BSP Result	Spikelot HGRWS1	% Rec	QC Limits	BSD Result	Spikelot HGRWS1	% Rec	BSD RPD	QC Limit
Mercury	2.9	3	96.7	80-120	2.9	3	96.7	0.0	20

Associated samples MP14104: M85761-2, M85761-4, M85761-6, M85761-10, M85761-13, M85761-15, M85761-16, M85761-18

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested



12/31/09  
Reissue #1

IT'S ALL IN THE CHEMISTRY

12/31/09

## Technical Report for

Loureiro Eng. Associates

UTC: 2009 Quarterly GW-Willow Pond

88UT907

Accutest Job Number: M87915

Sampling Date: 12/08/09

Report to:

Loureiro Eng. Associates

rlmckinney@loureiro.com

ATTN: Robin MCKinney

Total number of pages in report: **154**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Reza Fand  
Lab Director

Client Service contact: Kristen Blanchard 508-481-6200

Certifications: MA (M-MA136) CT (PH-0109) NH (2502) RI (00071) ME (MA0136) FL (E87579)  
NY (11791) NJ (MA926) NC (653) IL (200018) NAVY USACE

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Test results relate only to samples analyzed.



December 23, 2009

Ms. Robin McKinney  
Loureiro Eng.  
100 Northwest Drive  
Plainville, CT 06062

RE: Accutest Job M87915 (Revision 1)

Dear Ms. McKinney

The final report for Accutest job number M87915 has been corrected to reflect the correct sample ID.

This is as requested in your email on 12/23/09.

Sincerely,

A handwritten signature in black ink that reads "Frank D'Agostino".

Frank D'Agostino  
Accutest Laboratories of New England, Inc.

# Table of Contents

-1-

<b>Section 1: Sample Summary .....</b>	<b>5</b>
<b>Section 2: Case Narrative/Conformance Summary .....</b>	<b>8</b>
<b>Section 3: Sample Results .....</b>	<b>11</b>
<b>3.1:</b> M87915-1: 1136013 .....	12
<b>3.2:</b> M87915-2: 1136013UF .....	17
<b>3.3:</b> M87915-3: 1136028 .....	18
<b>3.4:</b> M87915-4: 1136028UF .....	23
<b>3.5:</b> M87915-5: 1136014 .....	24
<b>3.6:</b> M87915-6: 1136014UF .....	29
<b>3.7:</b> M87915-7: 1136011 .....	30
<b>3.8:</b> M87915-8: 1136011UF .....	35
<b>3.9:</b> M87915-9: 1136012 .....	36
<b>3.10:</b> M87915-10: 1136012UF .....	41
<b>3.11:</b> M87915-11: 1136010 .....	42
<b>3.12:</b> M87915-12: 1136010UF .....	47
<b>3.13:</b> M87915-13: 1136007 .....	48
<b>3.14:</b> M87915-14: 1136007UF .....	53
<b>3.15:</b> M87915-15: 1136008 .....	54
<b>3.16:</b> M87915-16: 1136008UF .....	59
<b>3.17:</b> M87915-17: 1136009 .....	60
<b>3.18:</b> M87915-18: 1136009UF .....	65
<b>3.19:</b> M87915-19: 1136017 .....	66
<b>3.20:</b> M87915-20: 1136015 .....	71
<b>3.21:</b> M87915-21: 1136015UF .....	76
<b>3.22:</b> M87915-22: 1136016 .....	77
<b>3.23:</b> M87915-23: 1136016UF .....	82
<b>3.24:</b> M87915-24: 1136027 .....	83
<b>3.25:</b> M87915-25: 1136027UF .....	88
<b>3.26:</b> M87915-26: 1136026 .....	89
<b>3.27:</b> M87915-27: 1136017UF .....	92
<b>Section 4: Misc. Forms .....</b>	<b>93</b>
<b>4.1:</b> Certification Exceptions .....	94
<b>4.2:</b> Chain of Custody .....	95
<b>4.3:</b> RCP Form .....	100
<b>4.4:</b> Sample Tracking Chronicle .....	101
<b>Section 5: GC/MS Volatiles - QC Data Summaries .....</b>	<b>106</b>
<b>5.1:</b> Method Blank Summary .....	107
<b>5.2:</b> Blank Spike/Blank Spike Duplicate Summary .....	113
<b>5.3:</b> Matrix Spike/Matrix Spike Duplicate Summary .....	119
<b>5.4:</b> Internal Standard Area Summaries .....	125
<b>5.5:</b> Surrogate Recovery Summaries .....	127
<b>Section 6: GC Semi-volatiles - QC Data Summaries .....</b>	<b>128</b>

# Table of Contents

-2-

6.1: Method Blank Summary .....	129
6.2: Blank Spike Summary .....	132
6.3: Matrix Spike/Matrix Spike Duplicate Summary .....	135
6.4: Surrogate Recovery Summaries .....	138
<b>Section 7: Metals Analysis - QC Data Summaries .....</b>	<b>140</b>
7.1: Prep QC MP14563: Hg .....	141
7.2: Prep QC MP14565: As,Ba,Cd,Cr,Cu,Pb,Ni,Se,Ag,Zn .....	144
7.3: Prep QC MP14583: Hg .....	152



## Sample Summary

Loureiro Eng. Associates

Job No: M87915

UTC: 2009 Quarterly GW-Willow Pond

Project No: 88UT907

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
M87915-1	12/08/09	12:55 RJD	12/08/09	AQ	Ground Water	1136013
M87915-2	12/08/09	12:55 RJD	12/08/09	AQ	Ground Water	1136013UF
M87915-3	12/08/09	12:55 RJD	12/08/09	AQ	Ground Water	1136028
M87915-4	12/08/09	12:55 RJD	12/08/09	AQ	Ground Water	1136028UF
M87915-5	12/08/09	15:20 RJD	12/08/09	AQ	Ground Water	1136014
M87915-6	12/08/09	15:20 RJD	12/08/09	AQ	Ground Water	1136014UF
M87915-7	12/08/09	11:00 RJD	12/08/09	AQ	Ground Water	1136011
M87915-8	12/08/09	11:00 RJD	12/08/09	AQ	Ground Water	1136011UF
M87915-9	12/08/09	13:10 RJD	12/08/09	AQ	Ground Water	1136012
M87915-10	12/08/09	13:10 RJD	12/08/09	AQ	Ground Water	1136012UF
M87915-11	12/08/09	15:15 RJD	12/08/09	AQ	Ground Water	1136010
M87915-12	12/08/09	15:15 RJD	12/08/09	AQ	Ground Water	1136010UF
M87915-13	12/08/09	09:50 RJD	12/08/09	AQ	Ground Water	1136007





## Sample Summary

(continued)

Loureiro Eng. Associates

Job No: M87915

UTC: 2009 Quarterly GW-Willow Pond  
Project No: 88UT907

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
M87915-14	12/08/09	09:50	RJD	12/08/09	AQ	Ground Water	1136007UF
M87915-15	12/08/09	11:20	RJD	12/08/09	AQ	Ground Water	1136008
M87915-16	12/08/09	11:20	RJD	12/08/09	AQ	Ground Water	1136008UF
M87915-17	12/08/09	13:00	RJD	12/08/09	AQ	Ground Water	1136009
M87915-18	12/08/09	13:00	RJD	12/08/09	AQ	Ground Water	1136009UF
M87915-19	12/08/09	15:00	RJD	12/08/09	AQ	Ground Water	1136017
M87915-20	12/08/09	13:00	RJD	12/08/09	AQ	Ground Water	1136015
M87915-21	12/08/09	13:00	RJD	12/08/09	AQ	Ground Water	1136015UF
M87915-22	12/08/09	15:05	RJD	12/08/09	AQ	Ground Water	1136016
M87915-23	12/08/09	15:05	RJD	12/08/09	AQ	Ground Water	1136016UF
M87915-24	12/08/09	15:50	RJD	12/08/09	AQ	Ground Water	1136027
M87915-25	12/08/09	15:50	RJD	12/08/09	AQ	Ground Water	1136027UF
M87915-26	12/08/09	10:00	RJD	12/08/09	AQ	Ground Water	1136026



**Sample Summary**  
(continued)

Loureiro Eng. Associates

**Job No:** M87915

UTC: 2009 Quarterly GW-Willow Pond  
Project No: 88UT907

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
M87915-27	12/08/09	15:00 RJD	12/08/09	AQ	Ground Water	1136017UF

## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Loureiro Eng. Associates

**Job No** M87915

**Site:** UTC: 2009 Quarterly GW-Willow Pond

**Report Date** 12/31/2009 11:55:18 AM

27 Sample(s) were collected on 12/08/2009 and were received at Accutest on 12/08/2009 properly preserved, at 0.1 Deg. C and intact. These Samples received an Accutest job number of M87915. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### Volatiles by GCMS By Method SW846 8260B

**Matrix** AQ

**Batch ID:** MSE1811

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M87915-1MS, M87915-1MSD were used as the QC samples indicated.
- Blank Spike Recovery(s) for Chloroethane, Chloromethane are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for 2-Butanone (MEK), Acetone, Acrylonitrile, Carbon disulfide are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for 2-Butanone (MEK), Acetone, Acrylonitrile, Carbon disulfide, Tetrahydrofuran are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Continuing calibration check standard MSE1811-CC1790 for dichlorodifluoromethane, acetone, 2-hexanone exceed 30% Difference. This check standard met RCP criteria.
- M87915-1MS/MSD for Chloromethane, Chloroethane: Outside control limits. Blank Spike meets program technical requirements.
- Initial calibration verification standard MSE1790-ICV1790 for acetone exceed 35% Difference.
- Initial calibration standard MSE1790-ICC1790 for acetone, 1,2,3-trichloropropane, 1,2,4-trichlorobenzene, 1,2,3-trichlorobenzene, naphthalene is employed quadratic regression.
- BSD Recovery(s) for 2-Hexanone, Chloromethane are outside control limits. Blank Spike meets program technical requirements.

**Matrix** AQ

**Batch ID:** MSE1814

- All samples were analyzed within the recommended method holding time.
- Sample(s) M88204-1MS, M88204-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 2-Butanone (MEK), 2-Hexanone are outside control limits. Associated samples are non-detect for this compound.
- RPD(s) for MSD for 1,2,3-Trichlorobenzene, Naphthalene are outside control limits for sample M88204-1MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.
- BSD Recovery(s) for 2-Hexanone are outside control limits. Associated samples are non-detect for this compound.
- MS/MSD Recovery(s) for a few compounds are outside control limits. Associated samples are non-detect for this compound.
- MS/MSD Recovery(s) for 1,2,4-Trimethylbenzene are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- Continuing calibration check standard MSE1814-CC1813 for acetone exceed 30% Difference. This check standard met RCP criteria.
- MS/MSD Recovery(s) for Acetone are outside control limits. Blank Spike meets program technical requirements.
- MS/MSD Recovery(s) for some compounds are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.

## Volatiles by GCMS By Method SW846 8260B

**Matrix** AQ

**Batch ID:** MSE1814

- Initial calibration standard MSE1813-ICC1813 for bromomethane, freon-113, acetone, 2-hexanone, 1,2-dibromo-3-chloropropane, 1,2,4-trichlorobenzene, naphthalene, 1,2,3-trichlorobenzene is employed quadratic regression.
- BS/BSD Recovery(s) for Acetone are outside control limits. Blank Spike meets program technical requirements.

## Extractables by GC By Method CT-ETPH 7/06

**Matrix** AQ

**Batch ID:** OP20189

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) M87925-22MS, M87925-22MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

**Matrix** AQ

**Batch ID:** OP20202

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) M88079-6MS, M88079-6MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

## Extractables by GC By Method SW846 8082

**Matrix** AQ

**Batch ID:** OP20201

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) M88079-5MS, M88079-5MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

## Metals By Method SW846 6010B

**Matrix** AQ

**Batch ID:** MP14565

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M87915-10DUP, M87915-10MS, M87915-10SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Lead, Nickel are outside control limits for sample MP14565-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- Only selected metals requested.

**Metals By Method SW846 7470A****Matrix** AQ**Batch ID:** MP14563

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M87880-4DUP, M87880-4MS were used as the QC samples for metals.
- Only selected metals requested.

**Matrix** AQ**Batch ID:** MP14583

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M87925-22DUP, M87925-22MS were used as the QC samples for metals.
- Only selected metals requested.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety. The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(M87915).



## Sample Results

## Report of Analysis

## Report of Analysis

<b>Client Sample ID:</b>	1136013	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-1	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	E41711.D	1	12/15/09	SC	n/a	n/a	MSE1811
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	0.56	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	4.3	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	3.5	1.0	ug/l	
107-06-2	1,2-Dichloroethane	1.2	1.0	ug/l	
75-35-4	1,1-Dichloroethene	10	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	10.7	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136013	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-1	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	7.6	1.0	ug/l	
109-99-9	Tetrahydrofuran	18.4	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	3.2	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	63.3	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	3.1	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	75%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



Report of Analysis

<b>Client Sample ID:</b>	1136013		
<b>Lab Sample ID:</b>	M87915-1	<b>Date Sampled:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	12/08/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	84%		70-130%
460-00-4	4-Bromofluorobenzene	80%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1136013  
**Lab Sample ID:** M87915-1  
**Matrix:** AQ - Ground Water  
**Method:** CT-ETPH 7/06 SW846 3510C  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Date Sampled:** 12/08/09  
**Date Received:** 12/08/09  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC35717.D	1	12/19/09	KD	12/14/09	OP20189	GBC1823
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	0.268	0.080	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
3386-33-2	1-Chlorooctadecane	101%		50-149%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136013		
<b>Lab Sample ID:</b>	M87915-1	<b>Date Sampled:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	12/08/09
<b>Method:</b>	SW846 8082 SW846 3510C	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF72352.D	1	12/22/09	SL	12/15/09	OP20201	GEF3314
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	80%		30-150%
877-09-8	Tetrachloro-m-xylene	100%		30-150%
2051-24-3	Decachlorobiphenyl	73%		30-150%
2051-24-3	Decachlorobiphenyl	75%		30-150%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 1136013UF

Lab Sample ID: M87915-2

Date Sampled: 12/08/09

Matrix: AQ - Ground Water

Date Received: 12/08/09

Percent Solids: n/a

Project: UTC: 2009 Quarterly GW-Willow Pond

## Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	6.6	4.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Barium	351	200	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Cadmium	< 4.0	4.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Chromium	< 10	10	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Copper	< 25	25	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Lead	< 5.0	5.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Mercury	< 0.20	0.20	ug/l	1	12/10/09	12/10/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>3</sup>
Nickel	89.4	40	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Selenium	< 10	10	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Silver	< 5.0	5.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Zinc	< 20	20	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>

(1) Instrument QC Batch: MA11275

(2) Instrument QC Batch: MA11288

(3) Prep QC Batch: MP14563

(4) Prep QC Batch: MP14565

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1136028	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-3	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	E41816.D	1	12/21/09	SC	n/a	n/a	MSE1814
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	0.65	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	5.8	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	5.8	1.0	ug/l	
107-06-2	1,2-Dichloroethane	1.4	1.0	ug/l	
75-35-4	1,1-Dichloroethene	13.4	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	17.6	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136028	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-3	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	6.4	1.0	ug/l	
109-99-9	Tetrahydrofuran	23.3	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	5.0	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	80.3	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	4.3	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136028	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-3	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	110%		70-130%
460-00-4	4-Bromofluorobenzene	97%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1136028  
**Lab Sample ID:** M87915-3  
**Matrix:** AQ - Ground Water  
**Method:** CT-ETPH 7/06 SW846 3510C  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Date Sampled:** 12/08/09  
**Date Received:** 12/08/09  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC35718.D	1	12/19/09	KD	12/14/09	OP20189	GBC1823
Run #2							

	Initial Volume	Final Volume
Run #1	930 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	0.209	0.086	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
3386-33-2	1-Chlorooctadecane	74%		50-149%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	1136028		
<b>Lab Sample ID:</b>	M87915-3	<b>Date Sampled:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	12/08/09
<b>Method:</b>	SW846 8082 SW846 3510C	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF72353.D	1	12/22/09	SL	12/15/09	OP20201	GEF3314
Run #2							

	Initial Volume	Final Volume
Run #1	980 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.26	ug/l	
11104-28-2	Aroclor 1221	ND	0.26	ug/l	
11141-16-5	Aroclor 1232	ND	0.26	ug/l	
53469-21-9	Aroclor 1242	ND	0.26	ug/l	
12672-29-6	Aroclor 1248	ND	0.26	ug/l	
11097-69-1	Aroclor 1254	ND	0.26	ug/l	
11096-82-5	Aroclor 1260	ND	0.26	ug/l	
37324-23-5	Aroclor 1262	ND	0.26	ug/l	
11100-14-4	Aroclor 1268	ND	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	75%		30-150%
877-09-8	Tetrachloro-m-xylene	97%		30-150%
2051-24-3	Decachlorobiphenyl	78%		30-150%
2051-24-3	Decachlorobiphenyl	80%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1136028UF**Lab Sample ID:** M87915-4**Date Sampled:** 12/08/09**Matrix:** AQ - Ground Water**Date Received:** 12/08/09**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond**Total Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	7.4	4.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Barium	349	200	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Cadmium	< 4.0	4.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Chromium	< 10	10	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Copper	< 25	25	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Lead	< 5.0	5.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Mercury	< 0.20	0.20	ug/l	1	12/10/09	12/10/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>3</sup>
Nickel	86.4	40	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Selenium	< 10	10	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Silver	< 5.0	5.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Zinc	< 20	20	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>

(1) Instrument QC Batch: MA11275

(2) Instrument QC Batch: MA11288

(3) Prep QC Batch: MP14563

(4) Prep QC Batch: MP14565

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1136014	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-5	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	E41716.D	1	12/15/09	SC	n/a	n/a	MSE1811
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136014	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-5	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	75%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136014	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-5	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	81%		70-130%
460-00-4	4-Bromofluorobenzene	78%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1136014  
**Lab Sample ID:** M87915-5  
**Matrix:** AQ - Ground Water  
**Method:** CT-ETPH 7/06 SW846 3510C  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Date Sampled:** 12/08/09  
**Date Received:** 12/08/09  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC35719.D	1	12/19/09	KD	12/14/09	OP20189	GBC1823
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	0.296	0.080	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
3386-33-2	1-Chlorooctadecane	71%		50-149%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1136014  
**Lab Sample ID:** M87915-5  
**Matrix:** AQ - Ground Water  
**Method:** SW846 8082 SW846 3510C  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Date Sampled:** 12/08/09  
**Date Received:** 12/08/09  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF72354.D	1	12/22/09	SL	12/15/09	OP20201	GEF3314
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.28	ug/l	
11104-28-2	Aroclor 1221	ND	0.28	ug/l	
11141-16-5	Aroclor 1232	ND	0.28	ug/l	
53469-21-9	Aroclor 1242	ND	0.28	ug/l	
12672-29-6	Aroclor 1248	ND	0.28	ug/l	
11097-69-1	Aroclor 1254	ND	0.28	ug/l	
11096-82-5	Aroclor 1260	ND	0.28	ug/l	
37324-23-5	Aroclor 1262	ND	0.28	ug/l	
11100-14-4	Aroclor 1268	ND	0.28	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	76%		30-150%
877-09-8	Tetrachloro-m-xylene	91%		30-150%
2051-24-3	Decachlorobiphenyl	91%		30-150%
2051-24-3	Decachlorobiphenyl	95%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1136014UF**Lab Sample ID:** M87915-6**Matrix:** AQ - Ground Water**Date Sampled:** 12/08/09**Date Received:** 12/08/09**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond**Total Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Barium	< 200	200	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Cadmium	< 4.0	4.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Chromium	< 10	10	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Copper	< 25	25	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Lead	< 5.0	5.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Mercury	< 0.20	0.20	ug/l	1	12/10/09	12/10/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>3</sup>
Nickel	< 40	40	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Selenium	< 10	10	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Silver	< 5.0	5.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Zinc	< 20	20	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>

(1) Instrument QC Batch: MA11275

(2) Instrument QC Batch: MA11288

(3) Prep QC Batch: MP14563

(4) Prep QC Batch: MP14565

RL = Reporting Limit



## Report of Analysis

<b>Client Sample ID:</b>	1136011	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-7	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	E41717.D	1	12/15/09	SC	n/a	n/a	MSE1811
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	1.5	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136011	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-7	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	75%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136011	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-7	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	84%		70-130%
460-00-4	4-Bromofluorobenzene	77%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1136011  
**Lab Sample ID:** M87915-7  
**Matrix:** AQ - Ground Water  
**Method:** CT-ETPH 7/06 SW846 3510C  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Date Sampled:** 12/08/09  
**Date Received:** 12/08/09  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC35720.D	1	12/19/09	KD	12/14/09	OP20189	GBC1823
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	ND	0.084	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
3386-33-2	1-Chlorooctadecane	90%		50-149%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1136011  
**Lab Sample ID:** M87915-7  
**Matrix:** AQ - Ground Water  
**Method:** SW846 8082 SW846 3510C  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Date Sampled:** 12/08/09  
**Date Received:** 12/08/09  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF72355.D	1	12/22/09	SL	12/15/09	OP20201	GEF3314
Run #2							

	Initial Volume	Final Volume
Run #1	850 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.29	ug/l	
11104-28-2	Aroclor 1221	ND	0.29	ug/l	
11141-16-5	Aroclor 1232	ND	0.29	ug/l	
53469-21-9	Aroclor 1242	ND	0.29	ug/l	
12672-29-6	Aroclor 1248	ND	0.29	ug/l	
11097-69-1	Aroclor 1254	ND	0.29	ug/l	
11096-82-5	Aroclor 1260	ND	0.29	ug/l	
37324-23-5	Aroclor 1262	ND	0.29	ug/l	
11100-14-4	Aroclor 1268	ND	0.29	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	90%		30-150%
877-09-8	Tetrachloro-m-xylene	105%		30-150%
2051-24-3	Decachlorobiphenyl	98%		30-150%
2051-24-3	Decachlorobiphenyl	101%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1136011UF**Lab Sample ID:** M87915-8**Matrix:** AQ - Ground Water**Date Sampled:** 12/08/09**Date Received:** 12/08/09**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond**Total Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Barium	< 200	200	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Cadmium	< 4.0	4.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Chromium	< 10	10	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Copper	< 25	25	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Lead	< 5.0	5.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Mercury	< 0.20	0.20	ug/l	1	12/10/09	12/10/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>3</sup>
Nickel	< 40	40	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Selenium	< 10	10	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Silver	< 5.0	5.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>
Zinc	< 20	20	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>4</sup>

(1) Instrument QC Batch: MA11275

(2) Instrument QC Batch: MA11288

(3) Prep QC Batch: MP14563

(4) Prep QC Batch: MP14565

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1136012	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-9	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	E41718.D	1	12/15/09	SC	n/a	n/a	MSE1811
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	23.4	1.0	ug/l	
107-06-2	1,2-Dichloroethane	1.5	1.0	ug/l	
75-35-4	1,1-Dichloroethene	4.1	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	60.3	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	4.1	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136012	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-9	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	60.5	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	76%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	1136012	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-9	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	85%		70-130%
460-00-4	4-Bromofluorobenzene	76%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136012		
<b>Lab Sample ID:</b>	M87915-9	<b>Date Sampled:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	12/08/09
<b>Method:</b>	CT-ETPH 7/06 SW846 3510C	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC35721.D	1	12/19/09	KD	12/14/09	OP20189	GBC1823
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	0.120	0.080	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
3386-33-2	1-Chlorooctadecane	88%		50-149%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136012		
<b>Lab Sample ID:</b>	M87915-9	<b>Date Sampled:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	12/08/09
<b>Method:</b>	SW846 8082 SW846 3510C	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF72356.D	1	12/22/09	SL	12/15/09	OP20201	GEF3314
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	81%		30-150%
877-09-8	Tetrachloro-m-xylene	102%		30-150%
2051-24-3	Decachlorobiphenyl	103%		30-150%
2051-24-3	Decachlorobiphenyl	101%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1136012UF**Lab Sample ID:** M87915-10**Matrix:** AQ - Ground Water**Date Sampled:** 12/08/09**Date Received:** 12/08/09**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond**Total Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Barium	271	200	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 4.0	4.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Copper	< 25	25	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	12/12/09	12/14/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>4</sup>
Nickel	< 40	40	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA11283

(2) Instrument QC Batch: MA11288

(3) Prep QC Batch: MP14565

(4) Prep QC Batch: MP14583

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1136010	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-11	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	E41719.D	1	12/15/09	SC	n/a	n/a	MSE1811
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	3.6	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136010	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-11	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	4.2	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	17.6	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	74%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136010	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-11	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	81%		70-130%
460-00-4	4-Bromofluorobenzene	77%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

3.11  
3

**Client Sample ID:** 1136010  
**Lab Sample ID:** M87915-11  
**Matrix:** AQ - Ground Water  
**Method:** CT-ETPH 7/06 SW846 3510C  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Date Sampled:** 12/08/09  
**Date Received:** 12/08/09  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC35738.D	1	12/21/09	KD	12/15/09	OP20202	GBC1824
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	ND	0.080	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
3386-33-2	1-Chlorooctadecane	89%		50-149%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

**Client Sample ID:** 1136010**Lab Sample ID:** M87915-11**Date Sampled:** 12/08/09**Matrix:** AQ - Ground Water**Date Received:** 12/08/09**Method:** SW846 8082 SW846 3510C**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF72357.D	1	12/22/09	SL	12/15/09	OP20201	GEF3314
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.28	ug/l	
11104-28-2	Aroclor 1221	ND	0.28	ug/l	
11141-16-5	Aroclor 1232	ND	0.28	ug/l	
53469-21-9	Aroclor 1242	ND	0.28	ug/l	
12672-29-6	Aroclor 1248	ND	0.28	ug/l	
11097-69-1	Aroclor 1254	ND	0.28	ug/l	
11096-82-5	Aroclor 1260	ND	0.28	ug/l	
37324-23-5	Aroclor 1262	ND	0.28	ug/l	
11100-14-4	Aroclor 1268	ND	0.28	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	82%		30-150%
877-09-8	Tetrachloro-m-xylene	98%		30-150%
2051-24-3	Decachlorobiphenyl	72%		30-150%
2051-24-3	Decachlorobiphenyl	71%		30-150%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136010UF	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-12	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Barium	365	200	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 4.0	4.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Copper	< 25	25	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	12/12/09	12/14/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>4</sup>
Nickel	< 40	40	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA11283

(2) Instrument QC Batch: MA11288

(3) Prep QC Batch: MP14565

(4) Prep QC Batch: MP14583

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1136007	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-13	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	E41720.D	1	12/15/09	SC	n/a	n/a	MSE1811
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136007	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-13	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	75%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136007	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-13	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	85%		70-130%
460-00-4	4-Bromofluorobenzene	74%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1136007  
**Lab Sample ID:** M87915-13  
**Matrix:** AQ - Ground Water  
**Method:** CT-ETPH 7/06 SW846 3510C  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Date Sampled:** 12/08/09  
**Date Received:** 12/08/09  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC35740.D	1	12/21/09	KD	12/15/09	OP20202	GBC1824
Run #2							

	Initial Volume	Final Volume
Run #1	960 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	ND	0.083	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
3386-33-2	1-Chlorooctadecane	100%		50-149%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1136007**Lab Sample ID:** M87915-13**Date Sampled:** 12/08/09**Matrix:** AQ - Ground Water**Date Received:** 12/08/09**Method:** SW846 8082 SW846 3510C**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF72358.D	1	12/22/09	SL	12/15/09	OP20201	GEF3314
Run #2							

	Initial Volume	Final Volume
Run #1	960 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.26	ug/l	
11104-28-2	Aroclor 1221	ND	0.26	ug/l	
11141-16-5	Aroclor 1232	ND	0.26	ug/l	
53469-21-9	Aroclor 1242	ND	0.26	ug/l	
12672-29-6	Aroclor 1248	ND	0.26	ug/l	
11097-69-1	Aroclor 1254	ND	0.26	ug/l	
11096-82-5	Aroclor 1260	ND	0.26	ug/l	
37324-23-5	Aroclor 1262	ND	0.26	ug/l	
11100-14-4	Aroclor 1268	ND	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	77%		30-150%
877-09-8	Tetrachloro-m-xylene	99%		30-150%
2051-24-3	Decachlorobiphenyl	106%		30-150%
2051-24-3	Decachlorobiphenyl	109%		30-150%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1136007UF**Lab Sample ID:** M87915-14**Matrix:** AQ - Ground Water**Date Sampled:** 12/08/09**Date Received:** 12/08/09**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond**Total Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Barium	< 200	200	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 4.0	4.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Copper	< 25	25	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	12/12/09	12/14/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>4</sup>
Nickel	< 40	40	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA11283

(2) Instrument QC Batch: MA11288

(3) Prep QC Batch: MP14565

(4) Prep QC Batch: MP14583

RL = Reporting Limit



## Report of Analysis

<b>Client Sample ID:</b>	1136008	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-15	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	E41721.D	1	12/15/09	SC	n/a	n/a	MSE1811
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136008	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-15	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	74%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136008	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-15	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	85%		70-130%
460-00-4	4-Bromofluorobenzene	78%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1136008**Lab Sample ID:** M87915-15**Date Sampled:** 12/08/09**Matrix:** AQ - Ground Water**Date Received:** 12/08/09**Method:** CT-ETPH 7/06 SW846 3510C**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC35742.D	1	12/21/09	KD	12/15/09	OP20202	GBC1824
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
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	CT-DRO (C9-C36)	ND	0.084	mg/l	
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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
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3386-33-2	1-Chlorooctadecane	107%		50-149%
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ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136008		
<b>Lab Sample ID:</b>	M87915-15	<b>Date Sampled:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	12/08/09
<b>Method:</b>	SW846 8082 SW846 3510C	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF72359.D	1	12/22/09	SL	12/15/09	OP20201	GEF3314
Run #2							

	Initial Volume	Final Volume
Run #1	980 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.26	ug/l	
11104-28-2	Aroclor 1221	ND	0.26	ug/l	
11141-16-5	Aroclor 1232	ND	0.26	ug/l	
53469-21-9	Aroclor 1242	ND	0.26	ug/l	
12672-29-6	Aroclor 1248	ND	0.26	ug/l	
11097-69-1	Aroclor 1254	ND	0.26	ug/l	
11096-82-5	Aroclor 1260	ND	0.26	ug/l	
37324-23-5	Aroclor 1262	ND	0.26	ug/l	
11100-14-4	Aroclor 1268	ND	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	75%		30-150%
877-09-8	Tetrachloro-m-xylene	99%		30-150%
2051-24-3	Decachlorobiphenyl	103%		30-150%
2051-24-3	Decachlorobiphenyl	107%		30-150%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136008UF	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-16	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Barium	< 200	200	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 4.0	4.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Copper	< 25	25	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	12/12/09	12/14/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>4</sup>
Nickel	< 40	40	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA11283

(2) Instrument QC Batch: MA11288

(3) Prep QC Batch: MP14565

(4) Prep QC Batch: MP14583

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1136009	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-17	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	E41722.D	1	12/15/09	SC	n/a	n/a	MSE1811
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136009	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-17	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	77%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



Report of Analysis

<b>Client Sample ID:</b>	1136009		
<b>Lab Sample ID:</b>	M87915-17	<b>Date Sampled:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	12/08/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	83%		70-130%
460-00-4	4-Bromofluorobenzene	76%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1136009  
**Lab Sample ID:** M87915-17  
**Matrix:** AQ - Ground Water  
**Method:** CT-ETPH 7/06 SW846 3510C  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Date Sampled:** 12/08/09  
**Date Received:** 12/08/09  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC35744.D	1	12/21/09	KD	12/15/09	OP20202	GBC1824
Run #2							

	Initial Volume	Final Volume
Run #1	930 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	ND	0.086	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
3386-33-2	1-Chlorooctadecane	103%		50-149%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136009		
<b>Lab Sample ID:</b>	M87915-17	<b>Date Sampled:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	12/08/09
<b>Method:</b>	SW846 8082 SW846 3510C	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF72360.D	1	12/22/09	SL	12/15/09	OP20201	GEF3314
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.26	ug/l	
11104-28-2	Aroclor 1221	ND	0.26	ug/l	
11141-16-5	Aroclor 1232	ND	0.26	ug/l	
53469-21-9	Aroclor 1242	ND	0.26	ug/l	
12672-29-6	Aroclor 1248	ND	0.26	ug/l	
11097-69-1	Aroclor 1254	ND	0.26	ug/l	
11096-82-5	Aroclor 1260	ND	0.26	ug/l	
37324-23-5	Aroclor 1262	ND	0.26	ug/l	
11100-14-4	Aroclor 1268	ND	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	89%		30-150%
877-09-8	Tetrachloro-m-xylene	103%		30-150%
2051-24-3	Decachlorobiphenyl	83%		30-150%
2051-24-3	Decachlorobiphenyl	87%		30-150%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136009UF	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-18	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Barium	< 200	200	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 4.0	4.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Copper	< 25	25	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	12/12/09	12/14/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>4</sup>
Nickel	< 40	40	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA11283

(2) Instrument QC Batch: MA11288

(3) Prep QC Batch: MP14565

(4) Prep QC Batch: MP14583

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1136017	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-19	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	E41723.D	1	12/15/09	SC	n/a	n/a	MSE1811
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136017	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-19	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	78%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136017	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-19	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	86%		70-130%
460-00-4	4-Bromofluorobenzene	76%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

3.19

3

**Client Sample ID:** 1136017**Lab Sample ID:** M87915-19**Date Sampled:** 12/08/09**Matrix:** AQ - Ground Water**Date Received:** 12/08/09**Method:** CT-ETPH 7/06 SW846 3510C**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC35746.D	1	12/21/09	KD	12/15/09	OP20202	GBC1824
Run #2							

	Initial Volume	Final Volume
Run #1	940 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	ND	0.085	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
3386-33-2	1-Chlorooctadecane	101%		50-149%	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	1136017		
<b>Lab Sample ID:</b>	M87915-19	<b>Date Sampled:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	12/08/09
<b>Method:</b>	SW846 8082 SW846 3510C	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF72361.D	1	12/22/09	SL	12/15/09	OP20201	GEF3314
Run #2							

	Initial Volume	Final Volume
Run #1	910 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.27	ug/l	
11104-28-2	Aroclor 1221	ND	0.27	ug/l	
11141-16-5	Aroclor 1232	ND	0.27	ug/l	
53469-21-9	Aroclor 1242	ND	0.27	ug/l	
12672-29-6	Aroclor 1248	ND	0.27	ug/l	
11097-69-1	Aroclor 1254	ND	0.27	ug/l	
11096-82-5	Aroclor 1260	ND	0.27	ug/l	
37324-23-5	Aroclor 1262	ND	0.27	ug/l	
11100-14-4	Aroclor 1268	ND	0.27	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	65%		30-150%
877-09-8	Tetrachloro-m-xylene	84%		30-150%
2051-24-3	Decachlorobiphenyl	53%		30-150%
2051-24-3	Decachlorobiphenyl	61%		30-150%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136015	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-20	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	E41724.D	1	12/16/09	SC	n/a	n/a	MSE1811
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136015	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-20	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	74%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136015	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-20	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	79%		70-130%
460-00-4	4-Bromofluorobenzene	76%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

**Client Sample ID:** 1136015  
**Lab Sample ID:** M87915-20  
**Matrix:** AQ - Ground Water  
**Method:** CT-ETPH 7/06 SW846 3510C  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Date Sampled:** 12/08/09  
**Date Received:** 12/08/09  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC35748.D	1	12/21/09	KD	12/15/09	OP20202	GBC1824
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	ND	0.089	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
3386-33-2	1-Chlorooctadecane	105%		50-149%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136015		
<b>Lab Sample ID:</b>	M87915-20	<b>Date Sampled:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	12/08/09
<b>Method:</b>	SW846 8082 SW846 3510C	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF72363.D	1	12/22/09	SL	12/15/09	OP20201	GEF3314
Run #2							

	Initial Volume	Final Volume
Run #1	880 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.28	ug/l	
11104-28-2	Aroclor 1221	ND	0.28	ug/l	
11141-16-5	Aroclor 1232	ND	0.28	ug/l	
53469-21-9	Aroclor 1242	ND	0.28	ug/l	
12672-29-6	Aroclor 1248	ND	0.28	ug/l	
11097-69-1	Aroclor 1254	ND	0.28	ug/l	
11096-82-5	Aroclor 1260	ND	0.28	ug/l	
37324-23-5	Aroclor 1262	ND	0.28	ug/l	
11100-14-4	Aroclor 1268	ND	0.28	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	90%		30-150%
877-09-8	Tetrachloro-m-xylene	105%		30-150%
2051-24-3	Decachlorobiphenyl	79%		30-150%
2051-24-3	Decachlorobiphenyl	86%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1136015UF**Lab Sample ID:** M87915-21**Matrix:** AQ - Ground Water**Date Sampled:** 12/08/09**Date Received:** 12/08/09**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond**Total Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Barium	< 200	200	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 4.0	4.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Copper	< 25	25	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	12/12/09	12/14/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>4</sup>
Nickel	< 40	40	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA11283

(2) Instrument QC Batch: MA11288

(3) Prep QC Batch: MP14565

(4) Prep QC Batch: MP14583

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1136016	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-22	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	E41725.D	1	12/16/09	SC	n/a	n/a	MSE1811
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	1136016	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-22	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	74%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136016	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-22	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	84%		70-130%
460-00-4	4-Bromofluorobenzene	77%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1136016**Lab Sample ID:** M87915-22**Date Sampled:** 12/08/09**Matrix:** AQ - Ground Water**Date Received:** 12/08/09**Method:** CT-ETPH 7/06 SW846 3510C**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC35749.D	1	12/21/09	KD	12/15/09	OP20202	GBC1824
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
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	CT-DRO (C9-C36)	ND	0.080	mg/l	
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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
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3386-33-2	1-Chlorooctadecane	75%		50-149%
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ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1136016**Lab Sample ID:** M87915-22**Date Sampled:** 12/08/09**Matrix:** AQ - Ground Water**Date Received:** 12/08/09**Method:** SW846 8082 SW846 3510C**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF72364.D	1	12/22/09	SL	12/15/09	OP20201	GEF3314
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	95%		30-150%
877-09-8	Tetrachloro-m-xylene	111%		30-150%
2051-24-3	Decachlorobiphenyl	87%		30-150%
2051-24-3	Decachlorobiphenyl	95%		30-150%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1136016UF**Lab Sample ID:** M87915-23**Matrix:** AQ - Ground Water**Date Sampled:** 12/08/09**Date Received:** 12/08/09**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond**Total Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	10.1	4.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Barium	< 200	200	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 4.0	4.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Copper	< 25	25	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	12/12/09	12/14/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>4</sup>
Nickel	< 40	40	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA11283

(2) Instrument QC Batch: MA11288

(3) Prep QC Batch: MP14565

(4) Prep QC Batch: MP14583

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1136027	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-24	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	E41726.D	1	12/16/09	SC	n/a	n/a	MSE1811
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136027	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-24	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	76%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136027	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-24	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	85%		70-130%
460-00-4	4-Bromofluorobenzene	76%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

**Client Sample ID:** 1136027**Lab Sample ID:** M87915-24**Date Sampled:** 12/08/09**Matrix:** AQ - Ground Water**Date Received:** 12/08/09**Method:** CT-ETPH 7/06 SW846 3510C**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC35750.D	1	12/21/09	KD	12/15/09	OP20202	GBC1824
Run #2							

	Initial Volume	Final Volume
Run #1	880 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	ND	0.091	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
3386-33-2	1-Chlorooctadecane	73%		50-149%	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136027	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-24	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8082 SW846 3510C		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF72365.D	1	12/22/09	SL	12/15/09	OP20201	GEF3314
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.28	ug/l	
11104-28-2	Aroclor 1221	ND	0.28	ug/l	
11141-16-5	Aroclor 1232	ND	0.28	ug/l	
53469-21-9	Aroclor 1242	ND	0.28	ug/l	
12672-29-6	Aroclor 1248	ND	0.28	ug/l	
11097-69-1	Aroclor 1254	ND	0.28	ug/l	
11096-82-5	Aroclor 1260	ND	0.28	ug/l	
37324-23-5	Aroclor 1262	ND	0.28	ug/l	
11100-14-4	Aroclor 1268	ND	0.28	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	83%		30-150%
877-09-8	Tetrachloro-m-xylene	106%		30-150%
2051-24-3	Decachlorobiphenyl	92%		30-150%
2051-24-3	Decachlorobiphenyl	100%		30-150%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 1136027UF

Lab Sample ID: M87915-25

Matrix: AQ - Ground Water

Date Sampled: 12/08/09

Date Received: 12/08/09

Percent Solids: n/a

Project: UTC: 2009 Quarterly GW-Willow Pond

## Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Barium	< 200	200	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 4.0	4.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Copper	< 25	25	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	12/12/09	12/14/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>4</sup>
Nickel	< 40	40	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA11283

(2) Instrument QC Batch: MA11288

(3) Prep QC Batch: MP14565

(4) Prep QC Batch: MP14583

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1136026	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-26	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	E41710.D	1	12/15/09	SC	n/a	n/a	MSE1811
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136026	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-26	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	74%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136026	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-26	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	84%		70-130%
460-00-4	4-Bromofluorobenzene	79%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136017UF	<b>Date Sampled:</b>	12/08/09
<b>Lab Sample ID:</b>	M87915-27	<b>Date Received:</b>	12/08/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Barium	< 200	200	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 4.0	4.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Copper	< 25	25	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	12/12/09	12/14/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>4</sup>
Nickel	< 40	40	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	12/10/09	12/14/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA11283

(2) Instrument QC Batch: MA11288

(3) Prep QC Batch: MP14565

(4) Prep QC Batch: MP14583

RL = Reporting Limit



## Misc. Forms

### Custody Documents and Other Forms

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Includes the following where applicable:

- Certification Exceptions
- Certification Exceptions (CT)
- Chain of Custody
- RCP Form
- Sample Tracking Chronicle



Parameter Certification Exceptions

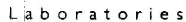
Job Number: M87915  
Account: LEA Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

The following parameters included in this report are exceptions to NELAC certification.  
The certification status of each is indicated below.

Parameter	CAS#	Method	Mat	Certification Status
Aroclor 1262	37324-23-5	SW846 8082	AQ	Certified by SOP MGC204/GC-ECD
Aroclor 1268	11100-14-4	SW846 8082	AQ	Certified by SOP MGC204/GC-ECD

4.1  
4





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1787915

## 4.2

96 of 154  
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M87915 Laboratories

3 of 4

# CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE  
MARLBOROUGH, MA 01752  
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #: KBZ/2009-453

ACCUTEST QUOTE #: M87915

CLIENT INFORMATION		FACILITY INFORMATION		ANALYTICAL INFORMATION										MATRIX CODES	
<b>NAME</b> LEA <b>ADDRESS</b> 100 North West Drive <b>CITY, STATE, ZIP</b> Plainville, CT 06062 <b>SEND REPORT TO:</b> <b>PHONE #</b> 860-410-3000		<b>PROJECT NAME</b> UTC P/W Willowpond Quarterly GW mon. <b>LOCATION</b> P/W East Hartford, East Hartford, Ct <b>PROJECT NO.</b> 88UT907-001 <b>FAX #</b>		<b>Vol's</b> 42608 <b>CT ETPH</b> <b>PCBs</b> 4082 <b>Total PCBs</b> 4082, 60, 60, 20										<b>DW - DRINKING WATER</b> <b>GW - GROUND WATER</b> <b>WW - WASTE WATER</b> <b>SO - SOIL</b> <b>SL - SLUDGE</b> <b>OI - OIL</b> <b>LIQ - OTHER LIQUID</b> <b>SOL - OTHER SOLID</b>	
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION		PRESERVATION										LAB USE ONLY	
		DATE	TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	HCl	NaOH	HNO3	H2SO4	None	+	-		
-13	1136007	12/4/09	9:50	CSB	GW	4							X	X	
	1136007	12/4/09	9:50	CSB	GW	2	X						X		
-14	1136007 of	12/4/09	9:50	CSB	GW	1			X					X	
-15	1136009	12/4/09	11:20	CSB	GW	4							X	X	
	1136008	12/4/09	11:20	CSB	GW	2	X						X		
-16	1136008 of	12/4/09	11:20	CSB	GW	1			X					X	
-17	1136009	12/4/09	13:00	CSB	GW	4							X	X	
	1136009	12/4/09	13:00	CSB	GW	2							X		
-18	1136009 of	12/4/09	13:00	CSB	GW	1								X	
-19	1136017	12/4/09	15:00	CSB	GW	4							X	X	
	1136017	12/4/09	15:00	CSB	GW	2							X	X	
DATA TURNAROUND INFORMATION		DATA DELIVERABLE INFORMATION		COMMENTS/REMARKS											
<input checked="" type="checkbox"/> 14 DAYS STANDARD <input type="checkbox"/> 7 DAYS RUSH <input type="checkbox"/> 48 HOUR EMERGENCY <input type="checkbox"/> OTHER 14 DAY TURNAROUND HARDCOPY, EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED		<input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> COMMERCIAL "B" <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> STATE FORMS <input type="checkbox"/> OTHER (SPECIFY)		Provide CT RCP analytical lists for VOCs and PCBs and provide Ct RCP report											
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY															
RELINQUISHED BY SAMPLER:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:			
1. SA/		12/4/09 16:50		1. [Signature]		2. [Signature]				2. [Signature]		3. [Signature]			
RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:			
3.				3.		4.				4.		5.			
RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		SEAL #		PRESERVE WHERE APPLICABLE		ON ICE		TEMPERATURE			
5.				5.				<input type="checkbox"/>		<input type="checkbox"/>		C			

4.2  
4

M87915: Chain of Custody

Page 3 of 5



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MS 7915

## 4.2

Page 4 of 5





## Accutest Laboratories Sample Receipt Summary

Accutest Job Number: M87915

Client: LEA

Immediate Client Services Action Required: No

Date / Time Received: 12/8/2009 6:30:00 PM

No. Coolers: 1

Client Service Action Required at Login: No

Project: UTC PW WILLGOOS

Airbill #'s: N/A

### Cooler Security

Y or N

Y or N

- |                           |                                     |                          |                       |                                     |                          |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present:       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact:  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

### Cooler Temperature

Y or N

- |                              |                                     |                          |
|------------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved:   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Cooler temp verification: | Infrared gun                        |                          |
| 3. Cooler media:             | Ice (bag)                           |                          |

### Quality Control Preservation

Y or N

N/A

- |                                 |                                     |                          |
|---------------------------------|-------------------------------------|--------------------------|
| 1. Trip Blank present / cooler: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Trip Blank listed on COC:    | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Samples preserved properly:  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4. VOCs headspace free:         | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

### Sample Integrity - Documentation

Y or N

- |  |                                     |                          |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles:   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete:        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

### Sample Integrity - Condition

Y or N

- |                                  |                                     |                          |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT:       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample:          | Intact                              |                          |

### Sample Integrity - Instructions

Y or N N/A

- |   |                                     |                                     |                                     |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear:           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 2. Bottles received for unspecified tests | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                                     |
| 3. Sufficient volume rec'd for analysis:  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 4. Compositing instructions clear:        | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear:          | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

Comments

Accutest Laboratories  
V:508.481.6200

495 Technology Center West, Bldg One  
F: 508.481.7753

Marlborough, MA  
www.accutest.com

M87915: Chain of Custody

Page 5 of 5

# Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Laboratory Name: Accutest New England Client: Loureiro Eng. Associates

Project Location: UTC: 2009 Quarterly GW-Willow Pond Project Number: 88UT907

Sampling Date(s): 12/8/2009

Laboratory Sample ID(s): M87915-1, M87915-2, M87915-3, M87915-4, M87915-5, M87915-6, M87915-7, M87915-8, M87915-9, M87915-10, M87915-11, M87915-12, M87915-13, M87915-14, M87915-15, M87915-16, M87915-17, M87915-18, M87915-19, M87915-20, M87915-21, M87915-22, M87915-23, M87915-24, M87915-25, M87915-26, M87915-27

Methods: CT-ETPH 7/06, SW846 6010B, SW846 7470A, SW846 8082, SW846 8260B

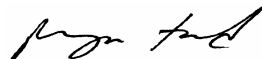
1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CTDEP method-specific Reasonable Confidence Protocol documents)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1A	Where all the method specified preservation and holding time requirements met?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1B	VPH and EPH mehods only: Was the VPH or EPH method conducted without significant modifications (See section 11.3 of respective methods)	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
3	Were samples received at an appropriate temperature (<6° C)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
4	Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
5	a) Were reporting limits specified or referenced on the chain-of-custody?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
	b) Were these reporting limits met?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
7	Are project-specific matrix spikes and laboratory duplicates included in this data set?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Note: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or #1B is "No", the data package does not meet the requirements for "Reasonable Confidence".

I, the undersigned, attest under pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized

Signature:



Position: Lab Director

Printed Name: Reza Tand  
Accutest New England

Date: 12/23/2009

## Internal Sample Tracking Chronicle

Loureiro Eng. Associates

Job No: M87915

UTC: 2009 Quarterly GW-Willow Pond

Project No: 88UT907

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M87915-1 1136013	Collected: 08-DEC-09 12:55	By: RJD	Received: 08-DEC-09	By: JB		
M87915-1	SW846 8260B	15-DEC-09 17:57	SC			V8260RCP
M87915-1	CT-ETPH 7/06	19-DEC-09 19:36	KD	14-DEC-09 DG		BCTTPH
M87915-1	SW846 8082	22-DEC-09 03:26	SL	15-DEC-09 FG		P8082RCP
M87915-2 1136013UF	Collected: 08-DEC-09 12:55	By: RJD	Received: 08-DEC-09	By: JB		
M87915-2	SW846 7470A	10-DEC-09 15:32	MA	10-DEC-09 MA		HG
M87915-2	SW846 6010B	14-DEC-09 13:32	PY	10-DEC-09 EAL		AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M87915-3 1136028	Collected: 08-DEC-09 12:55	By: RJD	Received: 08-DEC-09	By: JB		
M87915-3	CT-ETPH 7/06	19-DEC-09 20:16	KD	14-DEC-09 DG		BCTTPH
M87915-3	SW846 8260B	21-DEC-09 20:10	SC			V8260RCP
M87915-3	SW846 8082	22-DEC-09 04:10	SL	15-DEC-09 FG		P8082RCP
M87915-4 1136028UF	Collected: 08-DEC-09 12:55	By: RJD	Received: 08-DEC-09	By: JB		
M87915-4	SW846 7470A	10-DEC-09 15:34	MA	10-DEC-09 MA		HG
M87915-4	SW846 6010B	14-DEC-09 13:36	PY	10-DEC-09 EAL		AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M87915-5 1136014	Collected: 08-DEC-09 15:20	By: RJD	Received: 08-DEC-09	By: JB		
M87915-5	SW846 8260B	15-DEC-09 20:16	SC			V8260RCP
M87915-5	CT-ETPH 7/06	19-DEC-09 20:55	KD	14-DEC-09 DG		BCTTPH
M87915-5	SW846 8082	22-DEC-09 04:40	SL	15-DEC-09 FG		P8082RCP
M87915-6 1136014UF	Collected: 08-DEC-09 15:20	By: RJD	Received: 08-DEC-09	By: JB		
M87915-6	SW846 7470A	10-DEC-09 15:37	MA	10-DEC-09 MA		HG



## Internal Sample Tracking Chronicle

Loureiro Eng. Associates

Job No: M87915

UTC: 2009 Quarterly GW-Willow Pond  
Project No: 88UT907

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M87915-6	SW846 6010B	14-DEC-09 13:41	PY	10-DEC-09	EAL	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M87915-7 Collected: 08-DEC-09 11:00 By: RJD Received: 08-DEC-09 By: JB 1136011						
M87915-7	SW846 8260B	15-DEC-09 20:49	SC			V8260RCP
M87915-7	CT-ETPH 7/06	19-DEC-09 21:34	KD	14-DEC-09	DG	BCTTPH
M87915-7	SW846 8082	22-DEC-09 05:24	SL	15-DEC-09	FG	P8082RCP
M87915-8 Collected: 08-DEC-09 11:00 By: RJD Received: 08-DEC-09 By: JB 1136011UF						
M87915-8	SW846 7470A	10-DEC-09 15:39	MA	10-DEC-09	MA	HG
M87915-8	SW846 6010B	14-DEC-09 13:45	PY	10-DEC-09	EAL	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M87915-9 Collected: 08-DEC-09 13:10 By: RJD Received: 08-DEC-09 By: JB 1136012						
M87915-9	SW846 8260B	15-DEC-09 21:17	SC			V8260RCP
M87915-9	CT-ETPH 7/06	19-DEC-09 22:13	KD	14-DEC-09	DG	BCTTPH
M87915-9	SW846 8082	22-DEC-09 05:54	SL	15-DEC-09	FG	P8082RCP
M87915-10 Collected: 08-DEC-09 13:10 By: RJD Received: 08-DEC-09 By: JB 1136012UF						
M87915-10	SW846 6010B	14-DEC-09 13:10	PY	10-DEC-09	EAL	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M87915-10	SW846 7470A	14-DEC-09 13:18	MA	12-DEC-09	MA	HG
M87915-11 Collected: 08-DEC-09 15:15 By: RJD Received: 08-DEC-09 By: JB 1136010						
M87915-11	SW846 8260B	15-DEC-09 21:45	SC			V8260RCP
M87915-11	CT-ETPH 7/06	21-DEC-09 18:06	KD	15-DEC-09	FG	BCTTPH
M87915-11	SW846 8082	22-DEC-09 06:38	SL	15-DEC-09	FG	P8082RCP

## Internal Sample Tracking Chronicle

Loureiro Eng. Associates

Job No: M87915

UTC: 2009 Quarterly GW-Willow Pond  
Project No: 88UT907

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M87915-12 Collected: 08-DEC-09 15:15 By: RJD Received: 08-DEC-09 By: JB 1136010UF						
M87915-12	SW846 7470A	14-DEC-09 13:26	MA	12-DEC-09	MA	HG
M87915-12	SW846 6010B	14-DEC-09 13:50	PY	10-DEC-09	EAL	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M87915-13 Collected: 08-DEC-09 09:50 By: RJD Received: 08-DEC-09 By: JB 1136007						
M87915-13	SW846 8260B	15-DEC-09 22:09	SC			V8260RCP
M87915-13	CT-ETPH 7/06	21-DEC-09 18:45	KD	15-DEC-09	FG	BCTTPH
M87915-13	SW846 8082	22-DEC-09 07:08	SL	15-DEC-09	FG	P8082RCP
M87915-14 Collected: 08-DEC-09 09:50 By: RJD Received: 08-DEC-09 By: JB 1136007UF						
M87915-14	SW846 7470A	14-DEC-09 13:28	MA	12-DEC-09	MA	HG
M87915-14	SW846 6010B	14-DEC-09 13:54	PY	10-DEC-09	EAL	AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M87915-15 Collected: 08-DEC-09 11:20 By: RJD Received: 08-DEC-09 By: JB 1136008						
M87915-15	SW846 8260B	15-DEC-09 22:38	SC			V8260RCP
M87915-15	CT-ETPH 7/06	21-DEC-09 19:25	KD	15-DEC-09	FG	BCTTPH
M87915-15	SW846 8082	22-DEC-09 07:52	SL	15-DEC-09	FG	P8082RCP
M87915-16 Collected: 08-DEC-09 11:20 By: RJD Received: 08-DEC-09 By: JB 1136008UF						
M87915-16	SW846 7470A	14-DEC-09 13:31	MA	12-DEC-09	MA	HG
M87915-16	SW846 6010B	14-DEC-09 13:58	PY	10-DEC-09	EAL	AG,AS,BA,CD,CR,PB,SE
M87915-17 Collected: 08-DEC-09 13:00 By: RJD Received: 08-DEC-09 By: JB 1136009						
M87915-17	SW846 8260B	15-DEC-09 23:06	SC			V8260RCP
M87915-17	CT-ETPH 7/06	21-DEC-09 20:04	KD	15-DEC-09	FG	BCTTPH

## Internal Sample Tracking Chronicle

Loureiro Eng. Associates

Job No: M87915

UTC: 2009 Quarterly GW-Willow Pond  
Project No: 88UT907

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M87915-17	SW846 8082	22-DEC-09 08:22	SL	15-DEC-09	FG	P8082RCP
M87915-18 Collected: 08-DEC-09 13:00 By: RJD Received: 08-DEC-09 By: JB 1136009UF						
M87915-18	SW846 7470A	14-DEC-09 13:33	MA	12-DEC-09	MA	HG
M87915-18	SW846 6010B	14-DEC-09 14:03	PY	10-DEC-09	EAL	AG,AS,BA,CD,CR,PB,SE
M87915-19 Collected: 08-DEC-09 15:00 By: RJD Received: 08-DEC-09 By: JB 1136017						
M87915-19	SW846 8260B	15-DEC-09 23:35	SC			V8260RCP
M87915-19	CT-ETPH 7/06	21-DEC-09 20:44	KD	15-DEC-09	FG	BCTTPH
M87915-19	SW846 8082	22-DEC-09 09:10	SL	15-DEC-09	FG	P8082RCP
M87915-20 Collected: 08-DEC-09 13:00 By: RJD Received: 08-DEC-09 By: JB 1136015						
M87915-20	SW846 8260B	16-DEC-09 00:04	SC			V8260RCP
M87915-20	CT-ETPH 7/06	21-DEC-09 22:02	KD	15-DEC-09	FG	BCTTPH
M87915-20	SW846 8082	22-DEC-09 10:15	SL	15-DEC-09	FG	P8082RCP
M87915-21 Collected: 08-DEC-09 13:00 By: RJD Received: 08-DEC-09 By: JB 1136015UF						
M87915-21	SW846 7470A	14-DEC-09 13:35	MA	12-DEC-09	MA	HG
M87915-21	SW846 6010B	14-DEC-09 14:07	PY	10-DEC-09	EAL	AG,AS,BA,CD,CR,PB,SE
M87915-22 Collected: 08-DEC-09 15:05 By: RJD Received: 08-DEC-09 By: JB 1136016						
M87915-22	SW846 8260B	16-DEC-09 00:33	SC			V8260RCP
M87915-22	CT-ETPH 7/06	21-DEC-09 22:41	KD	15-DEC-09	FG	BCTTPH
M87915-22	SW846 8082	22-DEC-09 10:50	SL	15-DEC-09	RJ	P8082RCP
M87915-23 Collected: 08-DEC-09 15:05 By: RJD Received: 08-DEC-09 By: JB 1136016UF						
M87915-23	SW846 7470A	14-DEC-09 13:37	MA	12-DEC-09	MA	HG
M87915-23	SW846 6010B	14-DEC-09 14:20	PY	10-DEC-09	EAL	AG,AS,BA,CD,CR,PB,SE

## Internal Sample Tracking Chronicle

Loureiro Eng. Associates

Job No: M87915

UTC: 2009 Quarterly GW-Willow Pond  
Project No: 88UT907

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M87915-24 Collected: 08-DEC-09 15:50 By: RJD Received: 08-DEC-09 By: JB 1136027						
M87915-24	SW846 8260B	16-DEC-09 01:02	SC			V8260RCP
M87915-24	CT-ETPH 7/06	21-DEC-09 23:20	KD	15-DEC-09 FG		BCTTPH
M87915-24	SW846 8082	22-DEC-09 12:04	SL	15-DEC-09 FG		P8082RCP
M87915-25 Collected: 08-DEC-09 15:50 By: RJD Received: 08-DEC-09 By: JB 1136027UF						
M87915-25	SW846 7470A	14-DEC-09 13:40	MA	12-DEC-09 MA		HG
M87915-25	SW846 6010B	14-DEC-09 14:25	PY	10-DEC-09 EAL		AG,AS,BA,CD,CR,PB,SE
M87915-26 Collected: 08-DEC-09 10:00 By: RJD Received: 08-DEC-09 By: JB 1136026						
M87915-26	SW846 8260B	15-DEC-09 17:28	SC			V8260RCP
M87915-27 Collected: 08-DEC-09 15:00 By: RJD Received: 08-DEC-09 By: JB 1136017UF						
M87915-27	SW846 7470A	14-DEC-09 13:42	MA	12-DEC-09 MA		HG
M87915-27	SW846 6010B	14-DEC-09 14:29	PY	10-DEC-09 EAL		AG,AS,BA,CD,CR,PB,SE



## GC/MS Volatiles

5

### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

## Method Blank Summary

Page 1 of 3

**Job Number:** M87915**Account:** LEA Loureiro Eng. Associates**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSE1811-MB	E41709.D	1	12/15/09	SC	n/a	n/a	MSE1811

**The QC reported here applies to the following samples:****Method:** SW846 8260B

M87915-1, M87915-5, M87915-7, M87915-9, M87915-11, M87915-13, M87915-15, M87915-17, M87915-19, M87915-20, M87915-22, M87915-24, M87915-26

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	

## Method Blank Summary

Page 2 of 3

**Job Number:** M87915  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSE1811-MB	E41709.D	1	12/15/09	SC	n/a	n/a	MSE1811

The QC reported here applies to the following samples:

Method: SW846 8260B

M87915-1, M87915-5, M87915-7, M87915-9, M87915-11, M87915-13, M87915-15, M87915-17, M87915-19, M87915-20, M87915-22, M87915-24, M87915-26

CAS No.	Compound	Result	RL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

Method Blank Summary

Job Number: M87915  
Account: LEA Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSE1811-MB	E41709.D	1	12/15/09	SC	n/a	n/a	MSE1811

The QC reported here applies to the following samples: Method: SW846 8260B

M87915-1, M87915-5, M87915-7, M87915-9, M87915-11, M87915-13, M87915-15, M87915-17, M87915-19, M87915-20, M87915-22, M87915-24, M87915-26

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	77% 70-130%
2037-26-5	Toluene-D8	85% 70-130%
460-00-4	4-Bromofluorobenzene	79% 70-130%



## Method Blank Summary

Page 1 of 3

**Job Number:** M87915**Account:** LEA Loureiro Eng. Associates**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSE1814-MB	E41809.D	1	12/21/09	SC	n/a	n/a	MSE1814

**The QC reported here applies to the following samples:****Method:** SW846 8260B

M87915-3

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	

## Method Blank Summary

Page 2 of 3

**Job Number:** M87915  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSE1814-MB	E41809.D	1	12/21/09	SC	n/a	n/a	MSE1814

The QC reported here applies to the following samples:

Method: SW846 8260B

M87915-3

CAS No.	Compound	Result	RL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

## Method Blank Summary

Page 3 of 3

**Job Number:** M87915

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSE1814-MB	E41809.D	1	12/21/09	SC	n/a	n/a	MSE1814

The QC reported here applies to the following samples:

Method: SW846 8260B

M87915-3

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	96% 70-130%
2037-26-5	Toluene-D8	106% 70-130%
460-00-4	4-Bromofluorobenzene	94% 70-130%

# Blank Spike/Blank Spike Duplicate Summary

Page 1 of 3

**Job Number:** M87915

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSE1811-BS	E41707.D	1	12/15/09	SC	n/a	n/a	MSE1811
MSE1811-BSD	E41708.D	1	12/15/09	SC	n/a	n/a	MSE1811

The QC reported here applies to the following samples:

Method: SW846 8260B

M87915-1, M87915-5, M87915-7, M87915-9, M87915-11, M87915-13, M87915-15, M87915-17, M87915-19, M87915-20, M87915-22, M87915-24, M87915-26

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	60.1	120	60.0	120	0	70-130/25
107-13-1	Acrylonitrile	250	186	74	192	77	3	70-130/25
71-43-2	Benzene	50	42.6	85	43.8	88	3	70-130/25
108-86-1	Bromobenzene	50	49.9	100	51.8	104	4	70-130/25
75-27-4	Bromodichloromethane	50	45.7	91	45.8	92	0	70-130/25
75-25-2	Bromoform	50	55.7	111	59.7	119	7	70-130/25
74-83-9	Bromomethane	50	38.1	76	40.6	81	6	70-130/25
78-93-3	2-Butanone (MEK)	50	45.8	92	48.1	96	5	70-130/25
104-51-8	n-Butylbenzene	50	44.8	90	45.8	92	2	70-130/25
135-98-8	sec-Butylbenzene	50	50.2	100	51.8	104	3	70-130/25
98-06-6	tert-Butylbenzene	50	51.5	103	52.7	105	2	70-130/25
75-15-0	Carbon disulfide	50	36.6	73	37.8	76	3	70-130/25
56-23-5	Carbon tetrachloride	50	51.8	104	53.9	108	4	70-130/25
108-90-7	Chlorobenzene	50	52.6	105	53.6	107	2	70-130/25
75-00-3	Chloroethane	50	33.4	67* a	35.9	72	7	70-130/25
67-66-3	Chloroform	50	41.3	83	43.3	87	5	70-130/25
74-87-3	Chloromethane	50	32.0	64* a	32.9	66* a	3	70-130/25
95-49-8	o-Chlorotoluene	50	51.0	102	51.5	103	1	70-130/25
106-43-4	p-Chlorotoluene	50	52.3	105	53.3	107	2	70-130/25
96-12-8	1,2-Dibromo-3-chloropropane	50	43.0	86	43.8	88	2	70-130/25
124-48-1	Dibromochloromethane	50	54.1	108	56.8	114	5	70-130/25
106-93-4	1,2-Dibromoethane	50	51.9	104	55.0	110	6	70-130/25
95-50-1	1,2-Dichlorobenzene	50	44.8	90	45.8	92	2	70-130/25
541-73-1	1,3-Dichlorobenzene	50	50.2	100	51.5	103	3	70-130/25
106-46-7	1,4-Dichlorobenzene	50	49.8	100	51.5	103	3	70-130/25
75-71-8	Dichlorodifluoromethane	50	38.8	78	40.4	81	4	70-130/25
75-34-3	1,1-Dichloroethane	50	36.7	73	38.5	77	5	70-130/25
107-06-2	1,2-Dichloroethane	50	49.2	98	49.9	100	1	70-130/25
75-35-4	1,1-Dichloroethene	50	38.1	76	40.4	81	6	70-130/25
156-59-2	cis-1,2-Dichloroethene	50	36.8	74	37.9	76	3	70-130/25
156-60-5	trans-1,2-Dichloroethene	50	38.2	76	39.5	79	3	70-130/25
78-87-5	1,2-Dichloropropane	50	40.2	80	41.1	82	2	70-130/25
142-28-9	1,3-Dichloropropane	50	48.4	97	50.0	100	3	70-130/25
594-20-7	2,2-Dichloropropane	50	41.9	84	43.9	88	5	70-130/25
563-58-6	1,1-Dichloropropene	50	45.8	92	47.1	94	3	70-130/25
10061-01-5	cis-1,3-Dichloropropene	50	44.6	89	46.5	93	4	70-130/25

# Blank Spike/Blank Spike Duplicate Summary

Page 2 of 3

**Job Number:** M87915  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSE1811-BS	E41707.D	1	12/15/09	SC	n/a	n/a	MSE1811
MSE1811-BSD	E41708.D	1	12/15/09	SC	n/a	n/a	MSE1811

The QC reported here applies to the following samples:

Method: SW846 8260B

M87915-1, M87915-5, M87915-7, M87915-9, M87915-11, M87915-13, M87915-15, M87915-17, M87915-19, M87915-20, M87915-22, M87915-24, M87915-26

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	50	50.3	101	50.8	102	1	70-130/25
100-41-4	Ethylbenzene	50	49.5	99	52.1	104	5	70-130/25
76-13-1	Freon 113	50	44.8	90	46.3	93	3	70-130/25
87-68-3	Hexachlorobutadiene	50	38.5	77	40.5	81	5	70-130/25
591-78-6	2-Hexanone	50	57.3	115	67.2	134* a	16	70-130/25
98-82-8	Isopropylbenzene	50	60.3	121	61.9	124	3	70-130/25
99-87-6	p-Isopropyltoluene	50	51.7	103	52.7	105	2	70-130/25
1634-04-4	Methyl Tert Butyl Ether	50	38.9	78	41.7	83	7	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	43.0	86	44.5	89	3	70-130/25
74-95-3	Methylene bromide	50	48.0	96	50.7	101	5	70-130/25
75-09-2	Methylene chloride	50	36.7	73	38.5	77	5	70-130/25
91-20-3	Naphthalene	50	44.9	90	49.6	99	10	70-130/25
103-65-1	n-Propylbenzene	50	52.6	105	52.6	105	0	70-130/25
100-42-5	Styrene	50	50.4	101	53.2	106	5	70-130/25
630-20-6	1,1,1,2-Tetrachloroethane	50	55.3	111	56.6	113	2	70-130/25
79-34-5	1,1,2,2-Tetrachloroethane	50	48.9	98	49.6	99	1	70-130/25
127-18-4	Tetrachloroethene	50	57.0	114	59.9	120	5	70-130/25
109-99-9	Tetrahydrofuran	50	37.8	76	38.3	77	1	70-130/25
108-88-3	Toluene	50	46.6	93	47.4	95	2	70-130/25
110-57-6	Trans-1,4-Dichloro-2-Butene	50	54.8	110	56.7	113	3	70-130/25
87-61-6	1,2,3-Trichlorobenzene	50	45.6	91	49.6	99	8	70-130/25
120-82-1	1,2,4-Trichlorobenzene	50	43.4	87	45.9	92	6	70-130/25
71-55-6	1,1,1-Trichloroethane	50	43.5	87	45.4	91	4	70-130/25
79-00-5	1,1,2-Trichloroethane	50	46.7	93	47.2	94	1	70-130/25
79-01-6	Trichloroethene	50	46.1	92	45.9	92	0	70-130/25
75-69-4	Trichlorofluoromethane	50	40.1	80	43.4	87	8	70-130/25
96-18-4	1,2,3-Trichloropropane	50	41.3	83	44.3	89	7	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	50.6	101	52.0	104	3	70-130/25
108-67-8	1,3,5-Trimethylbenzene	50	51.0	102	52.2	104	2	70-130/25
75-01-4	Vinyl chloride	50	36.2	72	39.1	78	8	70-130/25
	m,p-Xylene	100	99.7	100	105	105	5	70-130/25
95-47-6	o-Xylene	50	51.3	103	52.6	105	3	70-130/25

## Blank Spike/Blank Spike Duplicate Summary

Page 3 of 3

**Job Number:** M87915

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSE1811-BS	E41707.D	1	12/15/09	SC	n/a	n/a	MSE1811
MSE1811-BSD	E41708.D	1	12/15/09	SC	n/a	n/a	MSE1811

The QC reported here applies to the following samples:

Method: SW846 8260B

M87915-1, M87915-5, M87915-7, M87915-9, M87915-11, M87915-13, M87915-15, M87915-17, M87915-19, M87915-20, M87915-22, M87915-24, M87915-26

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	75%	75%	70-130%
2037-26-5	Toluene-D8	85%	82%	70-130%
460-00-4	4-Bromofluorobenzene	82%	80%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

# Blank Spike/Blank Spike Duplicate Summary

Page 1 of 3

Job Number: M87915

Account: LEA Loureiro Eng. Associates

Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSE1814-BS	E41807.D	1	12/21/09	SC	n/a	n/a	MSE1814
MSE1814-BSD	E41808.D	1	12/21/09	SC	n/a	n/a	MSE1814

The QC reported here applies to the following samples:

Method: SW846 8260B

M87915-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	75.6	151* a	73.7	147* a	3	70-130/25
107-13-1	Acrylonitrile	250	257	103	266	106	3	70-130/25
71-43-2	Benzene	50	51.5	103	52.5	105	2	70-130/25
108-86-1	Bromobenzene	50	55.7	111	56.4	113	1	70-130/25
75-27-4	Bromodichloromethane	50	51.3	103	50.7	101	1	70-130/25
75-25-2	Bromoform	50	50.1	100	48.8	98	3	70-130/25
74-83-9	Bromomethane	50	37.8	76	48.5	97	25	70-130/25
78-93-3	2-Butanone (MEK)	50	65.6	131* b	59.2	118	10	70-130/25
104-51-8	n-Butylbenzene	50	48.5	97	47.0	94	3	70-130/25
135-98-8	sec-Butylbenzene	50	56.3	113	54.4	109	3	70-130/25
98-06-6	tert-Butylbenzene	50	54.9	110	54.5	109	1	70-130/25
75-15-0	Carbon disulfide	50	50.2	100	50.4	101	0	70-130/25
56-23-5	Carbon tetrachloride	50	52.2	104	54.2	108	4	70-130/25
108-90-7	Chlorobenzene	50	54.7	109	54.8	110	0	70-130/25
75-00-3	Chloroethane	50	46.6	93	48.6	97	4	70-130/25
67-66-3	Chloroform	50	53.4	107	54.6	109	2	70-130/25
74-87-3	Chloromethane	50	45.4	91	46.3	93	2	70-130/25
95-49-8	o-Chlorotoluene	50	56.5	113	57.0	114	1	70-130/25
106-43-4	p-Chlorotoluene	50	53.9	108	54.1	108	0	70-130/25
96-12-8	1,2-Dibromo-3-chloropropane	50	49.5	99	50.8	102	3	70-130/25
124-48-1	Dibromochloromethane	50	48.5	97	50.1	100	3	70-130/25
106-93-4	1,2-Dibromoethane	50	55.6	111	55.5	111	0	70-130/25
95-50-1	1,2-Dichlorobenzene	50	42.4	85	42.5	85	0	70-130/25
541-73-1	1,3-Dichlorobenzene	50	52.0	104	51.2	102	2	70-130/25
106-46-7	1,4-Dichlorobenzene	50	53.5	107	53.8	108	1	70-130/25
75-71-8	Dichlorodifluoromethane	50	37.4	75	37.2	74	1	70-130/25
75-34-3	1,1-Dichloroethane	50	51.1	102	52.7	105	3	70-130/25
107-06-2	1,2-Dichloroethane	50	52.1	104	54.8	110	5	70-130/25
75-35-4	1,1-Dichloroethene	50	46.4	93	47.4	95	2	70-130/25
156-59-2	cis-1,2-Dichloroethene	50	50.8	102	51.8	104	2	70-130/25
156-60-5	trans-1,2-Dichloroethene	50	48.4	97	47.6	95	2	70-130/25
78-87-5	1,2-Dichloropropane	50	49.7	99	51.3	103	3	70-130/25
142-28-9	1,3-Dichloropropane	50	54.6	109	53.5	107	2	70-130/25
594-20-7	2,2-Dichloropropane	50	57.2	114	59.9	120	5	70-130/25
563-58-6	1,1-Dichloropropene	50	56.3	113	53.5	107	5	70-130/25
10061-01-5	cis-1,3-Dichloropropene	50	54.6	109	57.2	114	5	70-130/25

## Blank Spike/Blank Spike Duplicate Summary

Page 2 of 3

Job Number: M87915

Account: LEA Loureiro Eng. Associates

Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSE1814-BS	E41807.D	1	12/21/09	SC	n/a	n/a	MSE1814
MSE1814-BSD	E41808.D	1	12/21/09	SC	n/a	n/a	MSE1814

The QC reported here applies to the following samples:

Method: SW846 8260B

M87915-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	50	60.5	121	63.3	127	5	70-130/25
100-41-4	Ethylbenzene	50	55.9	112	55.1	110	1	70-130/25
76-13-1	Freon 113	50	61.9	124	61.8	124	0	70-130/25
87-68-3	Hexachlorobutadiene	50	44.5	89	41.9	84	6	70-130/25
591-78-6	2-Hexanone	50	73.1	146* b	68.3	137* b	7	70-130/25
98-82-8	Isopropylbenzene	50	58.1	116	56.7	113	2	70-130/25
99-87-6	p-Isopropyltoluene	50	55.9	112	54.6	109	2	70-130/25
1634-04-4	Methyl Tert Butyl Ether	50	52.5	105	54.2	108	3	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	55.0	110	55.2	110	0	70-130/25
74-95-3	Methylene bromide	50	54.4	109	54.1	108	1	70-130/25
75-09-2	Methylene chloride	50	50.9	102	51.8	104	2	70-130/25
91-20-3	Naphthalene	50	57.1	114	61.0	122	7	70-130/25
103-65-1	n-Propylbenzene	50	57.7	115	56.5	113	2	70-130/25
100-42-5	Styrene	50	54.3	109	58.2	116	7	70-130/25
630-20-6	1,1,1,2-Tetrachloroethane	50	54.3	109	55.9	112	3	70-130/25
79-34-5	1,1,2,2-Tetrachloroethane	50	57.1	114	56.7	113	1	70-130/25
127-18-4	Tetrachloroethene	50	51.6	103	50.7	101	2	70-130/25
109-99-9	Tetrahydrofuran	50	51.6	103	53.3	107	3	70-130/25
108-88-3	Toluene	50	56.7	113	56.0	112	1	70-130/25
110-57-6	Trans-1,4-Dichloro-2-Butene	50	51.4	103	49.9	100	3	70-130/25
87-61-6	1,2,3-Trichlorobenzene	50	55.7	111	58.7	117	5	70-130/25
120-82-1	1,2,4-Trichlorobenzene	50	47.4	95	47.0	94	1	70-130/25
71-55-6	1,1,1-Trichloroethane	50	53.6	107	54.9	110	2	70-130/25
79-00-5	1,1,2-Trichloroethane	50	53.6	107	57.2	114	6	70-130/25
79-01-6	Trichloroethene	50	51.9	104	54.8	110	5	70-130/25
75-69-4	Trichlorofluoromethane	50	50.5	101	51.5	103	2	70-130/25
96-18-4	1,2,3-Trichloropropane	50	53.6	107	53.2	106	1	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	54.8	110	54.8	110	0	70-130/25
108-67-8	1,3,5-Trimethylbenzene	50	57.3	115	56.2	112	2	70-130/25
75-01-4	Vinyl chloride	50	46.4	93	45.9	92	1	70-130/25
	m,p-Xylene	100	118	118	115	115	3	70-130/25
95-47-6	o-Xylene	50	53.0	106	53.8	108	1	70-130/25



## Blank Spike/Blank Spike Duplicate Summary

Page 3 of 3

**Job Number:** M87915

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSE1814-BS	E41807.D	1	12/21/09	SC	n/a	n/a	MSE1814
MSE1814-BSD	E41808.D	1	12/21/09	SC	n/a	n/a	MSE1814

The QC reported here applies to the following samples:

Method: SW846 8260B

M87915-3

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	92%	92%	70-130%
2037-26-5	Toluene-D8	104%	106%	70-130%
460-00-4	4-Bromofluorobenzene	96%	94%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

(b) Outside control limits. Associated samples are non-detect for this compound.

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 3

**Job Number:** M87915  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M87915-1MS	E41712.D	5	12/15/09	SC	n/a	n/a	MSE1811
M87915-1MSD	E41713.D	5	12/15/09	SC	n/a	n/a	MSE1811
M87915-1	E41711.D	1	12/15/09	SC	n/a	n/a	MSE1811

The QC reported here applies to the following samples:

Method: SW846 8260B

M87915-1, M87915-5, M87915-7, M87915-9, M87915-11, M87915-13, M87915-15, M87915-17, M87915-19, M87915-20, M87915-22, M87915-24, M87915-26

CAS No.	Compound	M87915-1 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND	250	117	47* a	113	45* a	3	70-130/30
107-13-1	Acrylonitrile	ND	1250	840	67* a	847	68* a	1	70-130/30
71-43-2	Benzene	0.56	250	213	85	218	87	2	70-130/30
108-86-1	Bromobenzene	ND	250	260	104	262	105	1	70-130/30
75-27-4	Bromodichloromethane	ND	250	225	90	223	89	1	70-130/30
75-25-2	Bromoform	ND	250	221	88	226	90	2	70-130/30
74-83-9	Bromomethane	ND	250	201	80	187	75	7	70-130/30
78-93-3	2-Butanone (MEK)	ND	250	132	53* a	137	55* a	4	70-130/30
104-51-8	n-Butylbenzene	ND	250	233	93	238	95	2	70-130/30
135-98-8	sec-Butylbenzene	ND	250	264	106	268	107	2	70-130/30
98-06-6	tert-Butylbenzene	ND	250	269	108	271	108	1	70-130/30
75-15-0	Carbon disulfide	ND	250	171	68* a	172	69* a	1	70-130/30
56-23-5	Carbon tetrachloride	ND	250	257	103	269	108	5	70-130/30
108-90-7	Chlorobenzene	ND	250	268	107	275	110	3	70-130/30
75-00-3	Chloroethane	4.3	250	176	69* b	173	67* b	2	70-130/30
67-66-3	Chloroform	ND	250	215	86	215	86	0	70-130/30
74-87-3	Chloromethane	0.73	250	161	64* b	155	62* b	4	70-130/30
95-49-8	o-Chlorotoluene	ND	250	267	107	265	106	1	70-130/30
106-43-4	p-Chlorotoluene	ND	250	269	108	275	110	2	70-130/30
96-12-8	1,2-Dibromo-3-chloropropane	ND	250	214	86	230	92	7	70-130/30
124-48-1	Dibromochloromethane	ND	250	239	96	247	99	3	70-130/30
106-93-4	1,2-Dibromoethane	ND	250	263	105	277	111	5	70-130/30
95-50-1	1,2-Dichlorobenzene	ND	250	232	93	237	95	2	70-130/30
541-73-1	1,3-Dichlorobenzene	ND	250	264	106	264	106	0	70-130/30
106-46-7	1,4-Dichlorobenzene	ND	250	266	106	273	109	3	70-130/30
75-71-8	Dichlorodifluoromethane	ND	250	198	79	189	76	5	70-130/30
75-34-3	1,1-Dichloroethane	3.5	250	196	77	198	78	1	70-130/30
107-06-2	1,2-Dichloroethane	1.2	250	254	101	252	100	1	70-130/30
75-35-4	1,1-Dichloroethene	10	250	207	79	203	77	2	70-130/30
156-59-2	cis-1,2-Dichloroethene	10.7	250	200	76	198	75	1	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND	250	199	80	191	76	4	70-130/30
78-87-5	1,2-Dichloropropane	ND	250	206	82	207	83	0	70-130/30
142-28-9	1,3-Dichloropropane	ND	250	250	100	259	104	4	70-130/30
594-20-7	2,2-Dichloropropane	ND	250	229	92	218	87	5	70-130/30
563-58-6	1,1-Dichloropropene	ND	250	233	93	233	93	0	70-130/30
10061-01-5	cis-1,3-Dichloropropene	ND	250	221	88	229	92	4	70-130/30

# Matrix Spike/Matrix Spike Duplicate Summary

Page 2 of 3

**Job Number:** M87915  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M87915-1MS	E41712.D	5	12/15/09	SC	n/a	n/a	MSE1811
M87915-1MSD	E41713.D	5	12/15/09	SC	n/a	n/a	MSE1811
M87915-1	E41711.D	1	12/15/09	SC	n/a	n/a	MSE1811

The QC reported here applies to the following samples:

Method: SW846 8260B

M87915-1, M87915-5, M87915-7, M87915-9, M87915-11, M87915-13, M87915-15, M87915-17, M87915-19, M87915-20, M87915-22, M87915-24, M87915-26

CAS No.	Compound	M87915-1 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	ND	250	253	101	241	96	5	70-130/30
100-41-4	Ethylbenzene	ND	250	257	103	262	105	2	70-130/30
76-13-1	Freon 113	ND	250	234	94	219	88	7	70-130/30
87-68-3	Hexachlorobutadiene	ND	250	207	83	215	86	4	70-130/30
591-78-6	2-Hexanone	ND	250	216	86	209	84	3	70-130/30
98-82-8	Isopropylbenzene	ND	250	314	126	316	126	1	70-130/30
99-87-6	p-Isopropyltoluene	ND	250	271	108	271	108	0	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND	250	207	83	201	80	3	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	250	210	84	206	82	2	70-130/30
74-95-3	Methylene bromide	ND	250	245	98	240	96	2	70-130/30
75-09-2	Methylene chloride	ND	250	198	79	189	76	5	70-130/30
91-20-3	Naphthalene	ND	250	224	90	224	90	0	70-130/30
103-65-1	n-Propylbenzene	ND	250	271	108	275	110	1	70-130/30
100-42-5	Styrene	ND	250	244	98	247	99	1	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND	250	285	114	295	118	3	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND	250	250	100	251	100	0	70-130/30
127-18-4	Tetrachloroethene	7.6	250	311	121	315	123	1	70-130/30
109-99-9	Tetrahydrofuran	18.4	250	211	77	184	66* a	14	70-130/30
108-88-3	Toluene	ND	250	232	93	234	94	1	70-130/30
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	250	255	102	279	112	9	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND	250	230	92	228	91	1	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND	250	226	90	235	94	4	70-130/30
71-55-6	1,1,1-Trichloroethane	3.2	250	235	93	225	89	4	70-130/30
79-00-5	1,1,2-Trichloroethane	ND	250	227	91	227	91	0	70-130/30
79-01-6	Trichloroethene	63.3	250	272	83	260	79	5	70-130/30
75-69-4	Trichlorofluoromethane	ND	250	222	89	212	85	5	70-130/30
96-18-4	1,2,3-Trichloropropane	ND	250	201	80	207	83	3	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND	250	266	106	264	106	1	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND	250	262	105	267	107	2	70-130/30
75-01-4	Vinyl chloride	3.1	250	189	74	182	72	4	70-130/30
	m,p-Xylene	ND	500	520	104	539	108	4	70-130/30
95-47-6	o-Xylene	ND	250	270	108	266	106	1	70-130/30

## Matrix Spike/Matrix Spike Duplicate Summary

Page 3 of 3

**Job Number:** M87915

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M87915-1MS	E41712.D	5	12/15/09	SC	n/a	n/a	MSE1811
M87915-1MSD	E41713.D	5	12/15/09	SC	n/a	n/a	MSE1811
M87915-1	E41711.D	1	12/15/09	SC	n/a	n/a	MSE1811

The QC reported here applies to the following samples:

Method: SW846 8260B

M87915-1, M87915-5, M87915-7, M87915-9, M87915-11, M87915-13, M87915-15, M87915-17, M87915-19, M87915-20, M87915-22, M87915-24, M87915-26

CAS No.	Surrogate Recoveries	MS	MSD	M87915-1	Limits
1868-53-7	Dibromofluoromethane	75%	74%	75%	70-130%
2037-26-5	Toluene-D8	82%	82%	84%	70-130%
460-00-4	4-Bromofluorobenzene	82%	81%	80%	70-130%

- (a) Outside control limits due to possible matrix interference. Refer to Blank Spike.  
(b) Outside control limits. Blank Spike meets program technical requirements.

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 3

**Job Number:** M87915  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M88204-1MS	E41818.D	5	12/21/09	SC	n/a	n/a	MSE1814
M88204-1MSD	E41819.D	5	12/21/09	SC	n/a	n/a	MSE1814
M88204-1	E41817.D	1	12/21/09	SC	n/a	n/a	MSE1814
M88204-1	E41820.D	50	12/21/09	SC	n/a	n/a	MSE1814

The QC reported here applies to the following samples:

Method: SW846 8260B

M87915-3

CAS No.	Compound	M88204-1 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND	250	85.7	34* <sup>a</sup>	81.3	33* <sup>a</sup>	5	70-130/30
107-13-1	Acrylonitrile	ND	1250	1060	85	1040	83	2	70-130/30
71-43-2	Benzene	15.1	250	267	101	254	96	5	70-130/30
108-86-1	Bromobenzene	ND	250	293	117	283	113	3	70-130/30
75-27-4	Bromodichloromethane	ND	250	246	98	240	96	2	70-130/30
75-25-2	Bromoform	ND	250	236	94	242	97	3	70-130/30
74-83-9	Bromomethane	ND	250	219	88	203	81	8	70-130/30
78-93-3	2-Butanone (MEK)	ND	250	180	72	150	60* <sup>b</sup>	18	70-130/30
104-51-8	n-Butylbenzene	ND	250	287	115	349	140* <sup>c</sup>	19	70-130/30
135-98-8	sec-Butylbenzene	109	250	282	69* <sup>c</sup>	297	75	5	70-130/30
98-06-6	tert-Butylbenzene	ND	250	237	95	216	86	9	70-130/30
75-15-0	Carbon disulfide	ND	250	208	83	194	78	7	70-130/30
56-23-5	Carbon tetrachloride	ND	250	265	106	230	92	14	70-130/30
108-90-7	Chlorobenzene	ND	250	293	117	287	115	2	70-130/30
75-00-3	Chloroethane	ND	250	206	82	201	80	2	70-130/30
67-66-3	Chloroform	ND	250	253	101	244	98	4	70-130/30
74-87-3	Chloromethane	6.4	250	197	76	182	70	8	70-130/30
95-49-8	o-Chlorotoluene	ND	250	309	124	301	120	3	70-130/30
106-43-4	p-Chlorotoluene	ND	250	256	102	245	98	4	70-130/30
96-12-8	1,2-Dibromo-3-chloropropane	ND	250	309	124	334	134* <sup>c</sup>	8	70-130/30
124-48-1	Dibromochloromethane	ND	250	241	96	250	100	4	70-130/30
106-93-4	1,2-Dibromoethane	ND	250	282	113	285	114	1	70-130/30
95-50-1	1,2-Dichlorobenzene	ND	250	225	90	228	91	1	70-130/30
541-73-1	1,3-Dichlorobenzene	ND	250	258	103	240	96	7	70-130/30
106-46-7	1,4-Dichlorobenzene	ND	250	268	107	254	102	5	70-130/30
75-71-8	Dichlorodifluoromethane	ND	250	161	64* <sup>c</sup>	132	53* <sup>c</sup>	20	70-130/30
75-34-3	1,1-Dichloroethane	ND	250	234	94	222	89	5	70-130/30
107-06-2	1,2-Dichloroethane	ND	250	247	99	243	97	2	70-130/30
75-35-4	1,1-Dichloroethene	ND	250	232	93	215	86	8	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND	250	253	101	237	95	7	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND	250	241	96	224	90	7	70-130/30
78-87-5	1,2-Dichloropropane	ND	250	240	96	227	91	6	70-130/30
142-28-9	1,3-Dichloropropane	ND	250	269	108	259	104	4	70-130/30
594-20-7	2,2-Dichloropropane	ND	250	263	105	239	96	10	70-130/30
563-58-6	1,1-Dichloropropene	ND	250	275	110	243	97	12	70-130/30
10061-01-5	cis-1,3-Dichloropropene	ND	250	257	103	251	100	2	70-130/30

# Matrix Spike/Matrix Spike Duplicate Summary

Page 2 of 3

**Job Number:** M87915  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M88204-1MS	E41818.D	5	12/21/09	SC	n/a	n/a	MSE1814
M88204-1MSD	E41819.D	5	12/21/09	SC	n/a	n/a	MSE1814
M88204-1	E41817.D	1	12/21/09	SC	n/a	n/a	MSE1814
M88204-1	E41820.D	50	12/21/09	SC	n/a	n/a	MSE1814

The QC reported here applies to the following samples:

Method: SW846 8260B

M87915-3

CAS No.	Compound	M88204-1 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	ND	250	281	112	272	109	3	70-130/30
100-41-4	Ethylbenzene	196	250	451	102	438	97	3	70-130/30
76-13-1	Freon 113	ND	250	311	124	254	102	20	70-130/30
87-68-3	Hexachlorobutadiene	ND	250	257	103	275	110	7	70-130/30
591-78-6	2-Hexanone	ND	250	169	-15* b	156	-20* b	8	70-130/30
98-82-8	Isopropylbenzene	53.9	250	380	130	365	124	4	70-130/30
99-87-6	p-Isopropyltoluene	111	250	296	74	302	76	2	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND	250	238	95	236	94	1	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	250	204	82	215	86	5	70-130/30
74-95-3	Methylene bromide	ND	250	261	104	262	105	0	70-130/30
75-09-2	Methylene chloride	ND	250	238	95	227	91	5	70-130/30
91-20-3	Naphthalene	61.6	250	531	188* c	373	125	35* d	70-130/30
103-65-1	n-Propylbenzene	113	250	374	104	376	105	1	70-130/30
100-42-5	Styrene	0.33	250	283	113	275	110	3	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND	250	293	117	277	111	6	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND	250	268	107	255	102	5	70-130/30
127-18-4	Tetrachloroethene	ND	250	277	111	260	104	6	70-130/30
109-99-9	Tetrahydrofuran	ND	250	200	80	199	80	1	70-130/30
108-88-3	Toluene	286	250	512	90	492	82	4	70-130/30
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	250	238	95	242	97	2	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND	250	151	60* c	87.9	35* c	53* d	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND	250	200	80	152	61* c	27	70-130/30
71-55-6	1,1,1-Trichloroethane	ND	250	266	106	235	94	12	70-130/30
79-00-5	1,1,2-Trichloroethane	ND	250	264	106	264	106	0	70-130/30
79-01-6	Trichloroethene	ND	250	273	109	256	102	6	70-130/30
75-69-4	Trichlorofluoromethane	ND	250	240	96	200	80	18	70-130/30
96-18-4	1,2,3-Trichloropropane	ND	250	229	92	225	90	2	70-130/30
95-63-6	1,2,4-Trimethylbenzene	1500 f	250	1050	-180* e	1190	-124* e	13	70-130/30
108-67-8	1,3,5-Trimethylbenzene	199	250	450	100	481	113	7	70-130/30
75-01-4	Vinyl chloride	ND	250	202	81	179	72	12	70-130/30
	m,p-Xylene	666	500	1210	109	1180	103	3	70-130/30
95-47-6	o-Xylene	349	250	609	104	595	98	2	70-130/30

## Matrix Spike/Matrix Spike Duplicate Summary

Page 3 of 3

**Job Number:** M87915

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M88204-1MS	E41818.D	5	12/21/09	SC	n/a	n/a	MSE1814
M88204-1MSD	E41819.D	5	12/21/09	SC	n/a	n/a	MSE1814
M88204-1	E41817.D	1	12/21/09	SC	n/a	n/a	MSE1814
M88204-1	E41820.D	50	12/21/09	SC	n/a	n/a	MSE1814

The QC reported here applies to the following samples:

Method: SW846 8260B

M87915-3

CAS No.	Surrogate Recoveries	MS	MSD	M88204-1	M88204-1	Limits
1868-53-7	Dibromofluoromethane	84%	85%	98%	83%	70-130%
2037-26-5	Toluene-D8	105%	100%	106%	107%	70-130%
460-00-4	4-Bromofluorobenzene	87%	83%	65% * g	91%	70-130%

- (a) Outside control limits. Blank Spike meets program technical requirements.
- (b) Outside control limits. Associated samples are non-detect for this compound.
- (c) Outside control limits due to possible matrix interference. Refer to Blank Spike.
- (d) High RPD due to possible matrix interference and/or sample non-homogeneity.
- (e) Outside control limits due to high level in sample relative to spike amount.
- (f) Result is from Run #2.
- (g) Outside control limits due to matrix interference. Confirmed by reanalysis.

# Volatile Internal Standard Area Summary

Page 1 of 1

**Job Number:** M87915  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Check Std:** MSE1811-CC1790  
**Lab File ID:** E41706.D  
**Instrument ID:** GCMSE  
**Injection Date:** 12/15/09  
**Injection Time:** 15:35  
**Method:** SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	225280	9.24	263111	10.11	113308	13.38	172879	15.93	42082	6.75
Upper Limit <sup>a</sup>	450560	9.74	526222	10.61	226616	13.88	345758	16.43	84164	7.25
Lower Limit <sup>b</sup>	112640	8.74	131556	9.61	56654	12.88	86440	15.43	21041	6.25

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSE1811-BS	240176	9.24	273195	10.11	121636	13.38	178783	15.93	45232	6.75
MSE1811-BSD	225858	9.23	261386	10.11	113418	13.37	171508	15.93	44407	6.75
MSE1811-MB	234289	9.24	272158	10.11	116354	13.38	184796	15.93	43800	6.75
M87915-26	237369	9.24	270399	10.11	114337	13.38	176319	15.93	35574	6.75
M87915-1	229705	9.24	261447	10.12	113627	13.38	175664	15.93	45030	6.75
M87915-1MS	228193	9.24	264659	10.11	116152	13.38	171499	15.93	42054	6.75
M87915-1MSD	241911	9.23	277933	10.11	116207	13.37	171775	15.93	43102	6.75
M87915-5	221460	9.24	248218	10.11	106843	13.38	166620	15.93	37872	6.75
M87915-7	218468	9.23	250799	10.12	106732	13.37	172956	15.94	37781	6.75
M87915-9	218333	9.23	242082	10.11	105311	13.37	172433	15.93	37217	6.75
M87915-11	225359	9.23	248101	10.11	106741	13.37	171053	15.93	37447	6.75
M87915-13	212569	9.24	237756	10.11	101375	13.38	173539	15.93	36247	6.75
M87915-15	228043	9.23	253139	10.11	109244	13.37	176199	15.93	38828	6.75
M87915-17	221046	9.23	254727	10.11	106118	13.38	170940	15.93	37743	6.75
M87915-19	215178	9.24	239818	10.11	104285	13.38	172273	15.93	36668	6.75
M87915-20	225864	9.23	248404	10.11	105339	13.37	171671	15.93	38317	6.75
M87915-22	214819	9.23	233176	10.11	100916	13.37	161667	15.93	37954	6.74
M87915-24	216014	9.23	236378	10.11	101962	13.38	165490	15.93	36330	6.75
ZZZZZZ	222057	9.23	245322	10.11	106519	13.37	169859	15.93	36949	6.75
ZZZZZZ	213477	9.23	232020	10.11	101183	13.37	164369	15.93	35750	6.74
ZZZZZZ	210864	9.23	231075	10.10	102130	13.37	160189	15.92	35743	6.75
ZZZZZZ	215960	9.23	242678	10.10	104552	13.37	169750	15.93	35056	6.75

**IS 1** = Pentafluorobenzene  
**IS 2** = 1,4-Difluorobenzene  
**IS 3** = Chlorobenzene-D5  
**IS 4** = 1,4-Dichlorobenzene-d4  
**IS 5** = Tert Butyl Alcohol-D9

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.



# Volatile Internal Standard Area Summary

Page 1 of 1

**Job Number:** M87915  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Check Std:** MSE1814-CC1813  
**Lab File ID:** E41806.D  
**Instrument ID:** GCMSE  
**Injection Date:** 12/21/09  
**Injection Time:** 15:34  
**Method:** SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	227677	9.25	349286	10.13	180547	13.39	169550	15.94	81316	6.77
Upper Limit <sup>a</sup>	455354	9.75	698572	10.63	361094	13.89	339100	16.44	162632	7.27
Lower Limit <sup>b</sup>	113839	8.75	174643	9.63	90274	12.89	84775	15.44	40658	6.27

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSE1814-BS	231211	9.25	355962	10.12	179562	13.39	174254	15.94	79804	6.77
MSE1814-BSD	221681	9.25	334768	10.12	175067	13.39	171049	15.94	79902	6.76
MSE1814-MB	213531	9.25	334102	10.12	171359	13.39	170945	15.94	78154	6.77
ZZZZZZ	214450	9.25	327755	10.12	171696	13.38	165368	15.94	66886	6.76
ZZZZZZ	213367	9.25	329186	10.12	170118	13.39	160212	15.94	68367	6.77
ZZZZZZ	212758	9.25	325691	10.12	168331	13.39	170778	15.94	66882	6.77
ZZZZZZ	205932	9.25	320742	10.12	165136	13.39	156089	15.94	77105	6.77
ZZZZZZ	212145	9.24	327279	10.12	171810	13.38	164496	15.94	68744	6.77
ZZZZZZ	205903	9.25	325173	10.13	176241	13.38	158928	15.94	71502	6.76
M87915-3	203306	9.24	319885	10.12	167380	13.38	155929	15.94	87140	6.76
M88204-1	200690	9.25	313275	10.12	160970	13.39	224065	15.94	68974	6.76
M88204-1MS	270706	9.24	394886	10.12	192896	13.38	196038	15.94	77009	6.76
M88204-1MSD	293020	9.25	427489	10.12	202319	13.38	207422	15.93	83504	6.76
M88204-1	290818	9.25	416227	10.12	200207	13.39	209317	15.94	81021	6.76
ZZZZZZ	308315	9.24	443324	10.12	207277	13.38	220317	15.94	85846	6.75
ZZZZZZ	289713	9.25	425175	10.12	198912	13.38	213718	15.94	81895	6.76
ZZZZZZ	281049	9.24	408640	10.12	192959	13.38	206966	15.94	77415	6.76
ZZZZZZ	270547	9.24	412863	10.12	193601	13.38	194640	15.94	77361	6.76
ZZZZZZ	245103	9.24	363199	10.11	175807	13.38	188330	15.93	76670	6.76
ZZZZZZ	242085	9.24	357064	10.12	180262	13.38	181915	15.94	77511	6.75
ZZZZZZ	236196	9.24	355748	10.12	178856	13.38	179567	15.93	73515	6.76
ZZZZZZ	228605	9.24	341816	10.12	173062	13.38	172941	15.94	74052	6.76
ZZZZZZ	233886	9.24	342584	10.11	176700	13.38	171772	15.93	70103	6.76
ZZZZZZ	223396	9.24	333014	10.12	173495	13.38	164225	15.93	71106	6.76

**IS 1** = Pentafluorobenzene  
**IS 2** = 1,4-Difluorobenzene  
**IS 3** = Chlorobenzene-D5  
**IS 4** = 1,4-Dichlorobenzene-d4  
**IS 5** = Tert Butyl Alcohol-D9

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

# Volatile Surrogate Recovery Summary

Page 1 of 1

**Job Number:** M87915

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Method:** SW846 8260B

**Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
M87915-1	E41711.D	75.0	84.0	80.0
M87915-3	E41816.D	97.0	110.0	97.0
M87915-5	E41716.D	75.0	81.0	78.0
M87915-7	E41717.D	75.0	84.0	77.0
M87915-9	E41718.D	76.0	85.0	76.0
M87915-11	E41719.D	74.0	81.0	77.0
M87915-13	E41720.D	75.0	85.0	74.0
M87915-15	E41721.D	74.0	85.0	78.0
M87915-17	E41722.D	77.0	83.0	76.0
M87915-19	E41723.D	78.0	86.0	76.0
M87915-20	E41724.D	74.0	79.0	76.0
M87915-22	E41725.D	74.0	84.0	77.0
M87915-24	E41726.D	76.0	85.0	76.0
M87915-26	E41710.D	74.0	84.0	79.0
M87915-1MS	E41712.D	75.0	82.0	82.0
M87915-1MSD	E41713.D	74.0	82.0	81.0
M88204-1MS	E41818.D	84.0	105.0	87.0
M88204-1MSD	E41819.D	85.0	100.0	83.0
MSE1811-BS	E41707.D	75.0	85.0	82.0
MSE1811-BSD	E41708.D	75.0	82.0	80.0
MSE1811-MB	E41709.D	77.0	85.0	79.0
MSE1814-BS	E41807.D	92.0	104.0	96.0
MSE1814-BSD	E41808.D	92.0	106.0	94.0
MSE1814-MB	E41809.D	96.0	106.0	94.0

## Surrogate Compounds

## Recovery Limits

**S1** = Dibromofluoromethane

70-130%

**S2** = Toluene-D8

70-130%

**S3** = 4-Bromofluorobenzene

70-130%



## GC Semi-volatiles

### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries

## Method Blank Summary

Page 1 of 1

**Job Number:** M87915

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP20189-MB	BC35610.D	1	12/17/09	KD	12/14/09	OP20189	GBC1819

The QC reported here applies to the following samples:

Method: CT-ETPH 7/06

M87915-1, M87915-3, M87915-5, M87915-7, M87915-9

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	ND	0.080	mg/l	

CAS No.	Surrogate Recoveries	Limits
3386-33-2	1-Chlorooctadecane	84% 50-149%

## Method Blank Summary

Page 1 of 1

**Job Number:** M87915

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP20202-MB	BC35729.D	1	12/21/09	KD	12/15/09	OP20202	GBC1824

The QC reported here applies to the following samples:

Method: CT-ETPH 7/06

M87915-11, M87915-13, M87915-15, M87915-17, M87915-19, M87915-20, M87915-22, M87915-24

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	ND	0.080	mg/l	

CAS No.	Surrogate Recoveries	Limits
3386-33-2	1-Chlorooctadecane	83% 50-149%

## Method Blank Summary

Page 1 of 1

**Job Number:** M87915

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP20201-MB	EF72238.D	1	12/17/09	SL	12/15/09	OP20201	GEF3310

The QC reported here applies to the following samples:

Method: SW846 8082

M87915-1, M87915-3, M87915-5, M87915-7, M87915-9, M87915-11, M87915-13, M87915-15, M87915-17, M87915-19, M87915-20, M87915-22, M87915-24

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	ug/l	

CAS No.	Surrogate Recoveries	Limits
877-09-8	Tetrachloro-m-xylene	88% 30-150%
877-09-8	Tetrachloro-m-xylene	88% 30-150%
2051-24-3	Decachlorobiphenyl	77% 30-150%
2051-24-3	Decachlorobiphenyl	71% 30-150%

## Blank Spike Summary

Page 1 of 1

**Job Number:** M87915

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP20189-BS	BC35613.D	1	12/17/09	KD	12/14/09	OP20189	GBC1819

The QC reported here applies to the following samples:

Method: CT-ETPH 7/06

M87915-1, M87915-3, M87915-5, M87915-7, M87915-9

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	CT-DRO (C9-C36)	0.7	0.660	94	60-120

CAS No.	Surrogate Recoveries	BSP	Limits
3386-33-2	1-Chlorooctadecane	91%	50-149%

6.2.1

6

## Blank Spike Summary

Page 1 of 1

**Job Number:** M87915

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP20202-BS	BC35730.D	1	12/21/09	KD	12/15/09	OP20202	GBC1824

The QC reported here applies to the following samples:

Method: CT-ETPH 7/06

M87915-11, M87915-13, M87915-15, M87915-17, M87915-19, M87915-20, M87915-22, M87915-24

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	CT-DRO (C9-C36)	0.7	0.635	91	60-120

CAS No.	Surrogate Recoveries	BSP	Limits
3386-33-2	1-Chlorooctadecane	94%	50-149%

6.2.2

6



## Blank Spike Summary

Page 1 of 1

**Job Number:** M87915

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP20201-BS	EF72239.D	1	12/17/09	SL	12/15/09	OP20201	GEF3310

The QC reported here applies to the following samples:

Method: SW846 8082

M87915-1, M87915-3, M87915-5, M87915-7, M87915-9, M87915-11, M87915-13, M87915-15, M87915-17, M87915-19, M87915-20, M87915-22, M87915-24

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
12674-11-2	Aroclor 1016	2	2.1	105	40-140
11104-28-2	Aroclor 1221		ND		40-140
11141-16-5	Aroclor 1232		ND		40-140
53469-21-9	Aroclor 1242		ND		40-140
12672-29-6	Aroclor 1248		ND		40-140
11097-69-1	Aroclor 1254		ND		40-140
11096-82-5	Aroclor 1260	2	2.0	100	40-140
37324-23-5	Aroclor 1262		ND		40-140
11100-14-4	Aroclor 1268		ND		40-140

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	91%	30-150%
877-09-8	Tetrachloro-m-xylene	91%	30-150%
2051-24-3	Decachlorobiphenyl	82%	30-150%
2051-24-3	Decachlorobiphenyl	76%	30-150%

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

**Job Number:** M87915

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP20189-MS	BC35614.D	1	12/17/09	KD	12/14/09	OP20189	GBC1819
OP20189-MSD	BC35615.D	1	12/17/09	KD	12/14/09	OP20189	GBC1819
M87925-22	BC35616.D	1	12/17/09	KD	12/14/09	OP20189	GBC1819

The QC reported here applies to the following samples:

Method: CT-ETPH 7/06

M87915-1, M87915-3, M87915-5, M87915-7, M87915-9

CAS No.	Compound	M87925-22 mg/l	Spike Q	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	CT-DRO (C9-C36)	ND	0.7	0.686	98	0.634	91	8	50-129/26

CAS No.	Surrogate Recoveries	MS	MSD	M87925-22	Limits
3386-33-2	1-Chlorooctadecane	109%	97%	117%	50-149%

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

**Job Number:** M87915

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP20202-MS	BC35732.D	1	12/21/09	KD	12/15/09	OP20202	GBC1824
OP20202-MSD	BC35734.D	1	12/21/09	KD	12/15/09	OP20202	GBC1824
M88079-6	BC35736.D	1	12/21/09	KD	12/15/09	OP20202	GBC1824

The QC reported here applies to the following samples:

Method: CT-ETPH 7/06

M87915-11, M87915-13, M87915-15, M87915-17, M87915-19, M87915-20, M87915-22, M87915-24

CAS No.	Compound	M88079-6 mg/l	Spike Q	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	CT-DRO (C9-C36)	ND	0.7	0.532	76	0.517	74	3	50-129/26

CAS No.	Surrogate Recoveries	MS	MSD	M88079-6	Limits
3386-33-2	1-Chlorooctadecane	85%	89%	86%	50-149%

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

**Job Number:** M87915

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP20201-MS	EF72242.D	1	12/17/09	SL	12/15/09	OP20201	GEF3310
OP20201-MSD	EF72243.D	1	12/17/09	SL	12/15/09	OP20201	GEF3310
M88079-5	EF72244.D	1	12/17/09	SL	12/15/09	OP20201	GEF3310

The QC reported here applies to the following samples:

Method: SW846 8082

M87915-1, M87915-3, M87915-5, M87915-7, M87915-9, M87915-11, M87915-13, M87915-15, M87915-17, M87915-19, M87915-20, M87915-22, M87915-24

CAS No.	Compound	M88079-5 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	ND	2	2.4	120	2.1	105	13	40-140/50
11104-28-2	Aroclor 1221	ND		ND		ND		nc	40-140/50
11141-16-5	Aroclor 1232	ND		ND		ND		nc	40-140/50
53469-21-9	Aroclor 1242	ND		ND		ND		nc	40-140/50
12672-29-6	Aroclor 1248	ND		ND		ND		nc	40-140/50
11097-69-1	Aroclor 1254	ND		ND		ND		nc	40-140/50
11096-82-5	Aroclor 1260	ND	2	2.1	105	2.1	105	0	40-140/50
37324-23-5	Aroclor 1262	ND		ND		ND		nc	40-140/50
11100-14-4	Aroclor 1268	ND		ND		ND		nc	40-140/50

CAS No.	Surrogate Recoveries	MS	MSD	M88079-5	Limits
877-09-8	Tetrachloro-m-xylene	104%	92%	81%	30-150%
877-09-8	Tetrachloro-m-xylene	102%	92%	82%	30-150%
2051-24-3	Decachlorobiphenyl	89%	86%	79%	30-150%
2051-24-3	Decachlorobiphenyl	86%	84%	75%	30-150%

# Semivolatile Surrogate Recovery Summary

Page 1 of 1

**Job Number:** M87915

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Method:** CT-ETPH 7/06

**Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 <sup>a</sup>
M87915-1	BC35717.D	101.0
M87915-3	BC35718.D	74.0
M87915-5	BC35719.D	71.0
M87915-7	BC35720.D	90.0
M87915-9	BC35721.D	88.0
M87915-11	BC35738.D	89.0
M87915-13	BC35740.D	100.0
M87915-15	BC35742.D	107.0
M87915-17	BC35744.D	103.0
M87915-19	BC35746.D	101.0
M87915-20	BC35748.D	105.0
M87915-22	BC35749.D	75.0
M87915-24	BC35750.D	73.0
OP20189-BS	BC35613.D	91.0
OP20189-MB	BC35610.D	84.0
OP20189-MS	BC35614.D	109.0
OP20189-MSD	BC35615.D	97.0
OP20202-BS	BC35730.D	94.0
OP20202-MB	BC35729.D	83.0
OP20202-MS	BC35732.D	85.0
OP20202-MSD	BC35734.D	89.0

Surrogate Compounds	Recovery Limits
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S1 = 1-Chlorooctadecane	50-149%
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(a) Recovery from GC signal #1

6.4.1

6

# Semivolatile Surrogate Recovery Summary

Page 1 of 1

**Job Number:** M87915

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Method:** SW846 8082

**Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 <sup>a</sup>	S1 <sup>b</sup>	S2 <sup>a</sup>	S2 <sup>b</sup>
M87915-1	EF72352.D	80.0	100.0	73.0	75.0
M87915-3	EF72353.D	75.0	97.0	78.0	80.0
M87915-5	EF72354.D	76.0	91.0	91.0	95.0
M87915-7	EF72355.D	90.0	105.0	98.0	101.0
M87915-9	EF72356.D	81.0	102.0	103.0	101.0
M87915-11	EF72357.D	82.0	98.0	72.0	71.0
M87915-13	EF72358.D	77.0	99.0	106.0	109.0
M87915-15	EF72359.D	75.0	99.0	103.0	107.0
M87915-17	EF72360.D	89.0	103.0	83.0	87.0
M87915-19	EF72361.D	65.0	84.0	53.0	61.0
M87915-20	EF72363.D	90.0	105.0	79.0	86.0
M87915-22	EF72364.D	95.0	111.0	87.0	95.0
M87915-24	EF72365.D	83.0	106.0	92.0	100.0
OP20201-BS	EF72239.D	91.0	91.0	82.0	76.0
OP20201-MB	EF72238.D	88.0	88.0	77.0	71.0
OP20201-MS	EF72242.D	104.0	102.0	89.0	86.0
OP20201-MSD	EF72243.D	92.0	92.0	86.0	84.0

## Surrogate Compounds

## Recovery Limits

**S1** = Tetrachloro-m-xylene

30-150%

**S2** = Decachlorobiphenyl

30-150%

(a) Recovery from GC signal #1

(b) Recovery from GC signal #2

6.4.2

6



## Metals Analysis

### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: M87915  
Account: LEA - Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14563  
Matrix Type: AQUEOUS

Methods: SW846 7470A  
Units: ug/l

Prep Date: 12/10/09

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.20	.035	.048	0.015	<0.20

Associated samples MP14563: M87915-2, M87915-4, M87915-6, M87915-8

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested



MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: M87915  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14563  
 Matrix Type: AQUEOUS

Methods: SW846 7470A  
 Units: ug/l

Prep Date: 12/10/09 12/10/09

Metal	M87880-4 Original MS		Spikelot HGRWS1 % Rec		QC Limits	M87880-4 Original DUP		RPD	QC Limits
Mercury	0.0	3.1	3	103.3	75-125	0.0	0.0	NC	0-20

Associated samples MP14563: M87915-2, M87915-4, M87915-6, M87915-8

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: M87915  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14563  
 Matrix Type: AQUEOUS

Methods: SW846 7470A  
 Units: ug/l

Prep Date: 12/10/09 12/10/09

Metal	BSP Result	Spikelot HGRWS1	% Rec	QC Limits	BSD Result	Spikelot HGRWS1	% Rec	BSD RPD	QC Limit
Mercury	3.1	3	103.3	80-120	3.0	3	100.0	3.3	20

Associated samples MP14563: M87915-2, M87915-4, M87915-6, M87915-8

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (anr) Analyte not requested

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: M87915  
Account: LEA - Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14565  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date: 12/10/09

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	27	40		
Antimony	6.0	1.4	1.6		
Arsenic	10	1	1.8	0.10	<10
Barium	200	.57	1.1	1.3	<200
Beryllium	4.0	.15	.4		
Boron	100	.65	2.3		
Cadmium	4.0	.24	1.9	0.10	<4.0
Calcium	5000	7.6	15		
Chromium	10	.81	1.1	-0.10	<10
Cobalt	50	.25	.3		
Copper	25	2.2	4	0.50	<25
Gold	50	1.1	4.2		
Iron	100	3.7	13		
Lead	5.0	1.1	2.7	0.10	<5.0
Magnesium	5000	37	77		
Manganese	15	.12	1.1		
Molybdenum	100	.22	.8		
Nickel	40	.24	1.3	0.30	<40
Palladium	50	2.2	4		
Platinum	50	9.3	13		
Potassium	5000	39	46		
Selenium	10	1.9	3.5	-0.90	<10
Silicon	100	8.9	36		
Silver	5.0	.54	1.3	-0.50	<5.0
Sodium	5000	61	160		
Strontium	10	.24	.3		
Thallium	10	1.2	1.3		
Tin	100	.65	1.3		
Titanium	50	.74	.8		
Tungsten	100	5.6	8		
Vanadium	30	.68	1.6		
Zinc	20	.74	1.5	1.2	<20

Associated samples MP14565: M87915-2, M87915-4, M87915-6, M87915-8, M87915-10, M87915-12, M87915-14, M87915-16, M87915-18, M87915-21, M87915-23, M87915-25, M87915-27

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: M87915  
Account: LEA - Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14565  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date:

Metal

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: M87915  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14565  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date:

12/10/09

12/10/09

Metal	M87915-10 Original MS		Spikelot MPICP	% Rec	QC Limits	M87915-10 Original DUP		RPD	QC Limits
Aluminum									
Antimony									
Arsenic	0.0	539	500	107.8	75-125	0.0	0.0	NC	0-20
Barium	271	2300	2000	101.5	75-125	271	271	0.0	0-20
Beryllium									
Boron									
Cadmium	0.0	546	500	109.2	75-125	0.0	0.0	NC	0-20
Calcium									
Chromium	0.0	489	500	97.8	75-125	0.0	0.0	NC	0-20
Cobalt									
Copper	0.0	525	500	105.0	75-125	0.0	0.0	NC	0-20
Gold									
Iron	anr								
Lead	1.4	998	1000	99.7	75-125	1.4	1.3	7.4	0-20
Magnesium									
Manganese	anr								
Molybdenum									
Nickel	1.0	499	500	99.6	75-125	1.0	1.2	18.2	0-20
Palladium									
Platinum									
Potassium									
Selenium	0.0	532	500	106.4	75-125	0.0	0.0	NC	0-20
Silicon									
Silver	0.0	217	200	108.5	75-125	0.0	0.0	NC	0-20
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Tungsten									
Vanadium									
Zinc	0.0	474	500	94.8	75-125	0.0	0.0	NC	0-20

Associated samples MP14565: M87915-2, M87915-4, M87915-6, M87915-8, M87915-10, M87915-12, M87915-14, M87915-16, M87915-18, M87915-21, M87915-23, M87915-25, M87915-27

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: M87915  
Account: LEA - Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14565  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date:

Metal

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(N) Matrix Spike Rec. outside of QC limits  
(anr) Analyte not requested

## SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: M87915  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14565  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 12/10/09

12/10/09

Metal	BSP Result	Spikelot MPICP	% Rec	QC Limits	BSD Result	Spikelot MPICP	% Rec	BSD RPD	QC Limit
Aluminum									
Antimony									
Arsenic	520	500	104.0	80-120	530	500	106.0	1.9	20
Barium	2000	2000	100.0	80-120	2010	2000	100.5	0.5	20
Beryllium									
Boron									
Cadmium	517	500	103.4	80-120	529	500	105.8	2.3	20
Calcium									
Chromium	493	500	98.6	80-120	484	500	96.8	1.8	20
Cobalt									
Copper	498	500	99.6	80-120	488	500	97.6	2.0	20
Gold									
Iron	anr								
Lead	1000	1000	100.0	80-120	1030	1000	103.0	3.0	20
Magnesium									
Manganese	anr								
Molybdenum									
Nickel	501	500	100.2	80-120	512	500	102.4	2.2	20
Palladium									
Platinum									
Potassium									
Selenium	525	500	105.0	80-120	532	500	106.4	1.3	20
Silicon									
Silver	204	200	102.0	80-120	200	200	100.0	2.0	20
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Tungsten									
Vanadium									
Zinc	500	500	100.0	80-120	512	500	102.4	2.4	20

Associated samples MP14565: M87915-2, M87915-4, M87915-6, M87915-8, M87915-10, M87915-12, M87915-14, M87915-16, M87915-18, M87915-21, M87915-23, M87915-25, M87915-27

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: M87915  
Account: LEA - Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14565  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date:

Metal

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested



# SERIAL DILUTION RESULTS SUMMARY

Login Number: M87915  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14565  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 12/10/09

Metal	M87915-10 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	0.00	0.00	NC	0-10
Barium	271	273	0.9	0-10
Beryllium				
Boron				
Cadmium	0.00	0.00	NC	0-10
Calcium				
Chromium	0.00	0.00	NC	0-10
Cobalt				
Copper	0.00	0.00	NC	0-10
Gold				
Iron	anr			
Lead	1.40	0.00	100.0(a)	0-10
Magnesium				
Manganese	anr			
Molybdenum				
Nickel	1.00	0.00	100.0(a)	0-10
Palladium				
Platinum				
Potassium				
Selenium	0.00	0.00	NC	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc	0.00	0.00	NC	0-10

Associated samples MP14565: M87915-2, M87915-4, M87915-6, M87915-8, M87915-10, M87915-12, M87915-14, M87915-16, M87915-18, M87915-21, M87915-23, M87915-25, M87915-27

SERIAL DILUTION RESULTS SUMMARY

Login Number: M87915  
Account: LEA - Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14565  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date:

Metal

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

7.2.4

7

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: M87915  
Account: LEA - Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14583  
Matrix Type: AQUEOUS

Methods: SW846 7470A  
Units: ug/l

Prep Date: 12/12/09

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.20	.035	.048	0.021	<0.20

Associated samples MP14583: M87915-10, M87915-12, M87915-14, M87915-16, M87915-18, M87915-21, M87915-23, M87915-25, M87915-27

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: M87915  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14583  
 Matrix Type: AQUEOUS

Methods: SW846 7470A  
 Units: ug/l

Prep Date: 12/12/09 12/12/09

Metal	M87925-22 Original MS		Spikelot HGRWS1	% Rec	QC Limits	M87925-22 Original DUP		RPD	QC Limits
Mercury	0.0	2.8	3	93.3	75-125	0.0	0.0	NC	0-20

Associated samples MP14583: M87915-10, M87915-12, M87915-14, M87915-16, M87915-18, M87915-21, M87915-23, M87915-25, M87915-27

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: M87915  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14583  
 Matrix Type: AQUEOUS

Methods: SW846 7470A  
 Units: ug/l

Prep Date: 12/12/09 12/12/09

Metal	BSP Result	Spikelot HGRWS1	% Rec	QC Limits	BSD Result	Spikelot HGRWS1	% Rec	BSD RPD	QC Limit
Mercury	3.1	3	103.3	80-120	3.1	3	103.3	0.0	20

Associated samples MP14583: M87915-10, M87915-12, M87915-14, M87915-16, M87915-18, M87915-21, M87915-23, M87915-25, M87915-27

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested



12/24/09

IT'S ALL IN THE CHEMISTRY

12/24/09

## Technical Report for

Loureiro Eng. Associates

UTC: 2009 Quarterly GW-Willow Pond

88UT907

Accutest Job Number: M87994

Sampling Date: 12/09/09

Report to:

Loureiro Eng. Associates

rlmckinney@loureiro.com

ATTN: Robin MCKinney

Total number of pages in report: **70**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Reza Fand  
Lab Director

Client Service contact: Kristen Blanchard 508-481-6200

Certifications: MA (M-MA136) CT (PH-0109) NH (2502) RI (00071) ME (MA0136) FL (E87579)  
NY (11791) NJ (MA926) NC (653) IL (200018) NAVY USACE

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Test results relate only to samples analyzed.

# Table of Contents

-1-

<b>Section 1: Sample Summary .....</b>	<b>3</b>
<b>Section 2: Case Narrative/Conformance Summary .....</b>	<b>4</b>
<b>Section 3: Sample Results .....</b>	<b>6</b>
<b>3.1:</b> M87994-1: 1136019 .....	7
<b>3.2:</b> M87994-2: 1136019UF .....	12
<b>3.3:</b> M87994-3: 1136020 .....	13
<b>3.4:</b> M87994-4: 1136020UF .....	18
<b>3.5:</b> M87994-5: 1136021 .....	19
<b>3.6:</b> M87994-6: 1136021UF .....	24
<b>3.7:</b> M87994-7: 1136025 .....	25
<b>3.8:</b> M87994-8: 1136024 .....	28
<b>Section 4: Misc. Forms .....</b>	<b>31</b>
<b>4.1:</b> Certification Exceptions .....	32
<b>4.2:</b> Chain of Custody .....	33
<b>4.3:</b> RCP Form .....	35
<b>4.4:</b> Sample Tracking Chronicle .....	36
<b>Section 5: GC/MS Volatiles - QC Data Summaries .....</b>	<b>38</b>
<b>5.1:</b> Method Blank Summary .....	39
<b>5.2:</b> Blank Spike/Blank Spike Duplicate Summary .....	42
<b>5.3:</b> Matrix Spike/Matrix Spike Duplicate Summary .....	45
<b>5.4:</b> Internal Standard Area Summaries .....	48
<b>5.5:</b> Surrogate Recovery Summaries .....	49
<b>Section 6: GC Semi-volatiles - QC Data Summaries .....</b>	<b>50</b>
<b>6.1:</b> Method Blank Summary .....	51
<b>6.2:</b> Blank Spike Summary .....	53
<b>6.3:</b> Matrix Spike/Matrix Spike Duplicate Summary .....	55
<b>6.4:</b> Surrogate Recovery Summaries .....	57
<b>Section 7: Metals Analysis - QC Data Summaries .....</b>	<b>59</b>
<b>7.1:</b> Prep QC MP14587: As,Ba,Cd,Cr,Cu,Pb,Ni,Se,Ag,Zn .....	60
<b>7.2:</b> Prep QC MP14599: Hg .....	68



Sample Summary

Loureiro Eng. Associates

Job No: M87994

UTC: 2009 Quarterly GW-Willow Pond  
Project No: 88UT907

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
M87994-1	12/09/09	09:30	CSB	12/10/09	AQ Ground Water	1136019
M87994-2	12/09/09	09:30	CSB	12/10/09	AQ Ground Water	1136019UF
M87994-3	12/09/09	11:20	CSB	12/10/09	AQ Ground Water	1136020
M87994-4	12/09/09	11:20	CSB	12/10/09	AQ Ground Water	1136020UF
M87994-5	12/09/09	12:40	CSB	12/10/09	AQ Ground Water	1136021
M87994-6	12/09/09	12:40	CSB	12/10/09	AQ Ground Water	1136021UF
M87994-7	12/09/09	09:00	CSB	12/10/09	AQ Ground Water	1136025
M87994-8	12/09/09	13:45	CSB	12/10/09	AQ Ground Water	1136024



## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Loureiro Eng. Associates

**Job No** M87994

**Site:** UTC: 2009 Quarterly GW-Willow Pond

**Report Date** 12/24/2009 4:08:31 P

8 Samples were collected on 12/09/2009 and were received at Accutest on 12/10/2009 properly preserved, at 0.9 Deg. C and intact. These Samples received an Accutest job number of M87994. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### Volatiles by GCMS By Method SW846 8260B

**Matrix:** AQ

**Batch ID:** MSN1450

- All samples were analyzed within the recommended method holding time.
- Sample(s) M87989-4MS, M87989-4MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike/Matrix Spike Duplicate Recovery(s) for Dichlorodifluoromethane are outside control limits. Blank Spike meets program technical requirements.
- Blank Spike/Blank Spike Duplicate Recovery(s) for Dichlorodifluoromethane and the Blank Spike Duplicate Recovery for Tetrachloroethene are outside control limits. Blank Spike meets program technical requirements.
- Dichlorodifluoromethane, Isopropylbenzene, and Hexachlorobutadiene did not meet RCP ICV acceptance criteria (were within 65-135% recovery). This ICV met RCP acceptance criteria.

### Extractables by GC By Method CT-ETPH 7/06

**Matrix:** AQ

**Batch ID:** OP20208

- All samples were analyzed within the recommended method holding time.
- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M88079-8MS, M88079-8MSD were used as the QC samples indicated.

### Extractables by GC By Method SW846 8082

**Matrix:** AQ

**Batch ID:** OP20193

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M87925-22MS, M87925-22MSD, OP20193-MSMSD were used as the QC samples indicated.

**Metals By Method SW846 6010B****Matrix:** AQ**Batch ID:** MP14587

- All samples were analyzed within the recommended method holding time.
- All samples were digested within the recommended method holding time.
- Sample(s) M87994-2DUP, M87994-2DUP, M87994-2MS, M87994-2SDL were used as the QC samples for metals.
- All method blanks for this batch meet method specific criteria.
- RPD(s) for Serial Dilution for Barium are outside control limits for sample MP14587-SD1. Serial Dilution RPD acceptable due to low duplicate and sample concentrations.
- RPD(s) for Duplicate for Chromium, Copper are outside control limits for sample MP14587-D1, MP14587-D1. RPD acceptable due to low duplicate and sample concentrations.

**Metals By Method SW846 7470A****Matrix:** AQ**Batch ID:** MP14599

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) M87994-2DUP, M87994-2MS were used as the QC samples for metals.
- All method blanks for this batch meet method specific criteria.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety. The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(M87994).



## Sample Results

## Report of Analysis

## Report of Analysis

<b>Client Sample ID:</b>	1136019	<b>Date Sampled:</b>	12/09/09
<b>Lab Sample ID:</b>	M87994-1	<b>Date Received:</b>	12/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N38688.D	1	12/17/09	WC	n/a	n/a	MSN1450
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136019	<b>Date Sampled:</b>	12/09/09
<b>Lab Sample ID:</b>	M87994-1	<b>Date Received:</b>	12/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	1136019	<b>Date Sampled:</b>	12/09/09
<b>Lab Sample ID:</b>	M87994-1	<b>Date Received:</b>	12/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	97%		70-130%
460-00-4	4-Bromofluorobenzene	90%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136019	<b>Date Sampled:</b>	12/09/09
<b>Lab Sample ID:</b>	M87994-1	<b>Date Received:</b>	12/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	CT-ETPH 7/06 SW846 3510C		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC35800.D	1	12/23/09	KD	12/16/09	OP20208	GBC1829
Run #2							

	Initial Volume	Final Volume
Run #1	800 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	ND	0.10	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
3386-33-2	1-Chlorooctadecane	81%		50-149%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136019		
<b>Lab Sample ID:</b>	M87994-1	<b>Date Sampled:</b>	12/09/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	12/10/09
<b>Method:</b>	SW846 8082 SW846 3510C	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF72388.D	1	12/23/09	SL	12/14/09	OP20193	GEF3314
Run #2							

	Initial Volume	Final Volume
Run #1	800 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.31	ug/l	
11104-28-2	Aroclor 1221	ND	0.31	ug/l	
11141-16-5	Aroclor 1232	ND	0.31	ug/l	
53469-21-9	Aroclor 1242	ND	0.31	ug/l	
12672-29-6	Aroclor 1248	ND	0.31	ug/l	
11097-69-1	Aroclor 1254	ND	0.31	ug/l	
11096-82-5	Aroclor 1260	ND	0.31	ug/l	
37324-23-5	Aroclor 1262	ND	0.31	ug/l	
11100-14-4	Aroclor 1268	ND	0.31	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	59%		30-150%
877-09-8	Tetrachloro-m-xylene	88%		30-150%
2051-24-3	Decachlorobiphenyl	94%		30-150%
2051-24-3	Decachlorobiphenyl	97%		30-150%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

**Client Sample ID:** 1136019UF**Lab Sample ID:** M87994-2**Matrix:** AQ - Ground Water**Date Sampled:** 12/09/09**Date Received:** 12/10/09**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond**Total Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	12/14/09	12/17/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Barium	< 200	200	ug/l	1	12/14/09	12/17/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 4.0	4.0	ug/l	1	12/14/09	12/17/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	12/14/09	12/17/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Copper	< 25	25	ug/l	1	12/14/09	12/17/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	12/14/09	12/17/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	12/17/09	12/17/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>4</sup>
Nickel	< 40	40	ug/l	1	12/14/09	12/17/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	12/14/09	12/17/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	12/14/09	12/17/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	12/14/09	12/17/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA11301

(2) Instrument QC Batch: MA11302

(3) Prep QC Batch: MP14587

(4) Prep QC Batch: MP14599

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1136020	<b>Date Sampled:</b>	12/09/09
<b>Lab Sample ID:</b>	M87994-3	<b>Date Received:</b>	12/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N38689.D	1	12/17/09	WC	n/a	n/a	MSN1450
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	2.9	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136020	<b>Date Sampled:</b>	12/09/09
<b>Lab Sample ID:</b>	M87994-3	<b>Date Received:</b>	12/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	19.6	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	6.5	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136020	<b>Date Sampled:</b>	12/09/09
<b>Lab Sample ID:</b>	M87994-3	<b>Date Received:</b>	12/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	97%		70-130%
460-00-4	4-Bromofluorobenzene	89%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1136020  
**Lab Sample ID:** M87994-3  
**Matrix:** AQ - Ground Water  
**Method:** CT-ETPH 7/06 SW846 3510C  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Date Sampled:** 12/09/09  
**Date Received:** 12/10/09  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC35802.D	1	12/23/09	KD	12/16/09	OP20208	GBC1829
Run #2							

	Initial Volume	Final Volume
Run #1	800 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	ND	0.10	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
3386-33-2	1-Chlorooctadecane	82%		50-149%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136020	<b>Date Sampled:</b>	12/09/09
<b>Lab Sample ID:</b>	M87994-3	<b>Date Received:</b>	12/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8082 SW846 3510C		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF72389.D	1	12/23/09	SL	12/14/09	OP20193	GEF3314
Run #2							

	Initial Volume	Final Volume
Run #1	800 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.31	ug/l	
11104-28-2	Aroclor 1221	ND	0.31	ug/l	
11141-16-5	Aroclor 1232	ND	0.31	ug/l	
53469-21-9	Aroclor 1242	ND	0.31	ug/l	
12672-29-6	Aroclor 1248	ND	0.31	ug/l	
11097-69-1	Aroclor 1254	ND	0.31	ug/l	
11096-82-5	Aroclor 1260	ND	0.31	ug/l	
37324-23-5	Aroclor 1262	ND	0.31	ug/l	
11100-14-4	Aroclor 1268	ND	0.31	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	99%		30-150%
877-09-8	Tetrachloro-m-xylene	107%		30-150%
2051-24-3	Decachlorobiphenyl	92%		30-150%
2051-24-3	Decachlorobiphenyl	92%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 1136020UF

Lab Sample ID: M87994-4

Matrix: AQ - Ground Water

Date Sampled: 12/09/09

Date Received: 12/10/09

Percent Solids: n/a

Project: UTC: 2009 Quarterly GW-Willow Pond

## Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	12/14/09	12/17/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Barium	< 200	200	ug/l	1	12/14/09	12/17/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 4.0	4.0	ug/l	1	12/14/09	12/17/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	12/14/09	12/17/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Copper	< 25	25	ug/l	1	12/14/09	12/17/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	12/14/09	12/17/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	12/17/09	12/17/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>4</sup>
Nickel	< 40	40	ug/l	1	12/14/09	12/17/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	12/14/09	12/17/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	12/14/09	12/17/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	12/14/09	12/17/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA11301

(2) Instrument QC Batch: MA11302

(3) Prep QC Batch: MP14587

(4) Prep QC Batch: MP14599

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1136021		
<b>Lab Sample ID:</b>	M87994-5	<b>Date Sampled:</b>	12/09/09
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	12/10/09
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	n/a
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N38690.D	1	12/17/09	WC	n/a	n/a	MSN1450
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	4.5	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	2.7	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	1136021	<b>Date Sampled:</b>	12/09/09
<b>Lab Sample ID:</b>	M87994-5	<b>Date Received:</b>	12/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	1.5	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	3.1	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136021	<b>Date Sampled:</b>	12/09/09
<b>Lab Sample ID:</b>	M87994-5	<b>Date Received:</b>	12/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	97%		70-130%
460-00-4	4-Bromofluorobenzene	90%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1136021  
**Lab Sample ID:** M87994-5  
**Matrix:** AQ - Ground Water  
**Method:** CT-ETPH 7/06 SW846 3510C  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Date Sampled:** 12/09/09  
**Date Received:** 12/10/09  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC35804.D	1	12/23/09	KD	12/16/09	OP20208	GBC1829
Run #2							

	Initial Volume	Final Volume
Run #1	800 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	0.555	0.10	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
3386-33-2	1-Chlorooctadecane	71%		50-149%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1136021  
**Lab Sample ID:** M87994-5  
**Matrix:** AQ - Ground Water  
**Method:** SW846 8082 SW846 3510C  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Date Sampled:** 12/09/09  
**Date Received:** 12/10/09  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF72390.D	1	12/23/09	SL	12/14/09	OP20193	GEF3314
Run #2							

	Initial Volume	Final Volume
Run #1	800 ml	5.0 ml
Run #2		

## CT Polychlorinated Biphenyls RCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.31	ug/l	
11104-28-2	Aroclor 1221	ND	0.31	ug/l	
11141-16-5	Aroclor 1232	ND	0.31	ug/l	
53469-21-9	Aroclor 1242	ND	0.31	ug/l	
12672-29-6	Aroclor 1248	ND	0.31	ug/l	
11097-69-1	Aroclor 1254	ND	0.31	ug/l	
11096-82-5	Aroclor 1260	ND	0.31	ug/l	
37324-23-5	Aroclor 1262	ND	0.31	ug/l	
11100-14-4	Aroclor 1268	ND	0.31	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	83%		30-150%
877-09-8	Tetrachloro-m-xylene	93%		30-150%
2051-24-3	Decachlorobiphenyl	82%		30-150%
2051-24-3	Decachlorobiphenyl	81%		30-150%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 1136021UF**Lab Sample ID:** M87994-6**Matrix:** AQ - Ground Water**Date Sampled:** 12/09/09**Date Received:** 12/10/09**Percent Solids:** n/a**Project:** UTC: 2009 Quarterly GW-Willow Pond**Total Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	12/14/09	12/17/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Barium	< 200	200	ug/l	1	12/14/09	12/17/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Cadmium	70.8	4.0	ug/l	1	12/14/09	12/17/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	12/14/09	12/17/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Copper	25.3	25	ug/l	1	12/14/09	12/17/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Lead	< 5.0	5.0	ug/l	1	12/14/09	12/17/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	12/17/09	12/17/09 MA	SW846 7470A <sup>1</sup>	SW846 7470A <sup>4</sup>
Nickel	1950	40	ug/l	1	12/14/09	12/17/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	12/14/09	12/17/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Silver	< 5.0	5.0	ug/l	1	12/14/09	12/17/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	12/14/09	12/17/09 PY	SW846 6010B <sup>2</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA11301

(2) Instrument QC Batch: MA11302

(3) Prep QC Batch: MP14587

(4) Prep QC Batch: MP14599

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	1136025	<b>Date Sampled:</b>	12/09/09
<b>Lab Sample ID:</b>	M87994-7	<b>Date Received:</b>	12/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N38691.D	1	12/17/09	WC	n/a	n/a	MSN1450
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136025	<b>Date Sampled:</b>	12/09/09
<b>Lab Sample ID:</b>	M87994-7	<b>Date Received:</b>	12/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136025	<b>Date Sampled:</b>	12/09/09
<b>Lab Sample ID:</b>	M87994-7	<b>Date Received:</b>	12/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	97%		70-130%
460-00-4	4-Bromofluorobenzene	91%		70-130%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	1136024	<b>Date Sampled:</b>	12/09/09
<b>Lab Sample ID:</b>	M87994-8	<b>Date Received:</b>	12/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N38692.D	1	12/17/09	WC	n/a	n/a	MSN1450
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	90.7	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	20.3	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136024	<b>Date Sampled:</b>	12/09/09
<b>Lab Sample ID:</b>	M87994-8	<b>Date Received:</b>	12/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	35.0	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	23.7	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	104	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	1136024	<b>Date Sampled:</b>	12/09/09
<b>Lab Sample ID:</b>	M87994-8	<b>Date Received:</b>	12/10/09
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	UTC: 2009 Quarterly GW-Willow Pond		

## VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	97%		70-130%
460-00-4	4-Bromofluorobenzene	90%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Misc. Forms

### Custody Documents and Other Forms

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Includes the following where applicable:

- Certification Exceptions
- Certification Exceptions (CT)
- Chain of Custody
- RCP Form
- Sample Tracking Chronicle

Parameter Certification Exceptions

Job Number: M87994  
Account: LEA Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

The following parameters included in this report are exceptions to NELAC certification.  
The certification status of each is indicated below.

Parameter	CAS#	Method	Mat	Certification Status
Aroclor 1262	37324-23-5	SW846 8082	AQ	Certified by SOP MGC204/GC-ECD
Aroclor 1268	11100-14-4	SW846 8082	AQ	Certified by SOP MGC204/GC-ECD

4.1  
4



**ACCUTEST.**  
Laboratories

# CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE  
MARLBOROUGH, MA 01752  
TEL: 508-481-8200 • FAX: 508-481-7753

ACCUTEST JOB #:

KBZ / 2009-453

M87994

ACCUTEST QUOTE #:

CLIENT INFORMATION			FACILITY INFORMATION			ANALYTICAL INFORMATION										MATRIX CODES			
<b>NAME</b> LFA <b>ADDRESS</b> 100 North West Drive <b>CITY</b> Plainville <b>CT</b> <b>STATE</b> 06062 <b>ZIP</b> <b>SEND REPORT TO:</b> Robin Mc Kinney <b>PHONE #</b> 860-410-3000			<b>PROJECT NAME</b> UTC P&W v. Howland Quarterly Gw Mon <b>LOCATION</b> P&W East Hartford, East Hartford CT <b>PROJECT NO.</b> 58UT907-001 <b>FAX #</b>			<b>ANALYTICAL INFORMATION</b> VOCs 8240B CT ETPH PCBs 4082 RECYCLED METALS 1 Cu, Ni, Zn										<b>MATRIX CODES</b> DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OI - OIL LIQ - OTHER LIQUID SOL - OTHER SOLID			
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION		SAMPLED BY:	MATRIX	# OF BOTTLES	PRESERVATION								LAB USE ONLY				
		DATE	TIME				NO	NOH	NIH2	NIH3	NIH4	NIH5	NIH6	NIH7					
-1	1136019	12/9/09	9:30	CSB	GW	2													
	1136019	12/9/09	9:30	CSB	GW	4													
-2	1136019 UP	12/9/09	9:30	CSB	GW	1													
-3	1136020	12/9/09	11:20	CSB	GW	2													
	1136020	12/9/09	11:20	CSB	GW	4													
-4	1136020 UP	12/9/09	11:20	CSB	GW	1													
-5	1136021	12/9/09	12:40	CSB	GW	2													
	1136021	12/9/09	12:40	CSB	GW	4													
-6	1136021 UP	12/9/09	12:40	CSB	GW	1													
-7	1136025	12/9/09	9:00	CSB	1.2	1												190,563, GE	
-8	1136024	12/9/09	13:45	CSB	1.2	2													
DATA TURNAROUND INFORMATION			DATA DELIVERABLE INFORMATION			COMMENTS/REMARKS													
<input checked="" type="checkbox"/> 14 DAYS STANDARD <input type="checkbox"/> 7 DAYS RUSH <input type="checkbox"/> 48 HOUR EMERGENCY <input type="checkbox"/> OTHER			<input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> COMMERCIAL "B" <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> STATE FORMS <input type="checkbox"/> OTHER (SPECIFY)			Provide CT RCP analytical lists for Voc's and PCBs and Provide CT RCP Report													
14 DAY TURNAROUND HARDCOPY, EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED																			
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY																			
RELINQUISHED BY SAMPLER:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:			
1. LFA		12/9/09 14:00		1. LFA		2. LFA		12/10/09 10:30		2. LFA		3. LFA		12/10/09 16:45		4. LFA			
RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:			
3. BZ		12/10/09 16:45		3. BZ		4. BZ		12/10/09 16:45		4. BZ		5. BZ		12/10/09 16:45		5. BZ			
RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:			
5. BZ		12/10/09 16:45		5. BZ		5. BZ		12/10/09 16:45		5. BZ		5. BZ		12/10/09 16:45		5. BZ			
PRESERVE WHERE APPLICABLE <input type="checkbox"/> ON ICE <input checked="" type="checkbox"/> TEMPERATURE <u>-2.9</u> C																			

M87994: Chain of Custody

Page 1 of 2



## Accutest Laboratories Sample Receipt Summary

Accutest Job Number: M87994

Client: LEA

Immediate Client Services Action Required: No

Date / Time Received: 12/10/2009 4:15:00 PM

No. Coolers: 1

Client Service Action Required at Login: No

Project:

Airbill #'s:

### Cooler Security

Y or N

Y or N

- |                           |                                     |                          |                       |                                     |                          |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present:       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact:  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

### Cooler Temperature

Y or N

- |                              |                                     |                          |
|------------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved:   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Cooler temp verification: | Infrared gun                        |                          |
| 3. Cooler media:             | Ice (bag)                           |                          |

### Quality Control Preservation

Y or N

N/A

- |                                 |                                     |                          |                          |
|---------------------------------|-------------------------------------|--------------------------|--------------------------|
| 1. Trip Blank present / cooler: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                          |
| 2. Trip Blank listed on COC:    | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                          |
| 3. Samples preserved properly:  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                          |
| 4. VOCs headspace free:         | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

### Sample Integrity - Documentation

Y or N

- |  |                                     |                          |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles:   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete:        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

### Sample Integrity - Condition

Y or N

- |                                  |                                     |                          |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT:       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample:          | Intact                              |                          |

### Sample Integrity - Instructions

Y or N N/A

- |   |                                     |                                     |                                     |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear:           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 2. Bottles received for unspecified tests | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                                     |
| 3. Sufficient volume rec'd for analysis:  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 4. Compositing instructions clear:        | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear:          | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

Comments

Accutest Laboratories  
V:508.481.6200

495 Technology Center West, Bldg One  
F: 508.481.7753

Marlborough, MA  
www.accutest.com

M87994: Chain of Custody

Page 2 of 2

# Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Laboratory Name: Accutest New England Client: Loureiro Eng. Associates

Project Location: UTC: 2009 Quarterly GW-Willow Pond Project Number: 88UT907

Sampling Date(s): 12/9/2009

Laboratory Sample ID(s): M87994-1, M87994-2, M87994-3, M87994-4, M87994-5, M87994-6, M87994-7, M87994-8

Methods: CT-ETPH 7/06, SW846 6010B, SW846 7470A, SW846 8082, SW846 8260B

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CTDEP method-specific Reasonable Confidence Protocol documents)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1A	Where all the method specified preservation and holding time requirements met?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1B	VPH and EPH methods only: Was the VPH or EPH method conducted without significant modifications (See section 11.3 of respective methods)	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
3	Were samples received at an appropriate temperature (<6° C)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
4	Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
5	a) Were reporting limits specified or referenced on the chain-of-custody?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
	b) Were these reporting limits met?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
7	Are project-specific matrix spikes and laboratory duplicates included in this data set?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

**Note:** For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or #1B is "No", the data package does not meet the requirements for "Reasonable Confidence".

I, the undersigned, attest under pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized

Signature:

Position: Lab Director

Printed Name: Reza Tand  
Accutest New England

Date: 12/24/2009



## Internal Sample Tracking Chronicle

Loureiro Eng. Associates

Job No: M87994

UTC: 2009 Quarterly GW-Willow Pond  
Project No: 88UT907

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M87994-1 1136019	Collected: 09-DEC-09 09:30	By: CSB	Received: 10-DEC-09	By: JB		
M87994-1	SW846 8260B	17-DEC-09 17:58	WC			V8260RCP
M87994-1	SW846 8082	23-DEC-09 02:18	SL	14-DEC-09 FG		P8082RCP
M87994-1	CT-ETPH 7/06	23-DEC-09 12:22	KD	16-DEC-09 DG		BCTTPH
M87994-2 1136019UF	Collected: 09-DEC-09 09:30	By: CSB	Received: 10-DEC-09	By: JB		
M87994-2	SW846 6010B	17-DEC-09 11:27	PY	14-DEC-09 EAL		AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M87994-2	SW846 7470A	17-DEC-09 15:48	MA	17-DEC-09 MA		HG
M87994-3 1136020	Collected: 09-DEC-09 11:20	By: CSB	Received: 10-DEC-09	By: JB		
M87994-3	SW846 8260B	17-DEC-09 18:26	WC			V8260RCP
M87994-3	SW846 8082	23-DEC-09 03:02	SL	14-DEC-09 FG		P8082RCP
M87994-3	CT-ETPH 7/06	23-DEC-09 13:02	KD	16-DEC-09 DG		BCTTPH
M87994-4 1136020UF	Collected: 09-DEC-09 11:20	By: CSB	Received: 10-DEC-09	By: JB		
M87994-4	SW846 6010B	17-DEC-09 12:11	PY	14-DEC-09 EAL		AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN
M87994-4	SW846 7470A	17-DEC-09 15:50	MA	17-DEC-09 MA		HG
M87994-5 1136021	Collected: 09-DEC-09 12:40	By: CSB	Received: 10-DEC-09	By: JB		
M87994-5	SW846 8260B	17-DEC-09 18:54	WC			V8260RCP
M87994-5	SW846 8082	23-DEC-09 03:32	SL	14-DEC-09 FG		P8082RCP
M87994-5	CT-ETPH 7/06	23-DEC-09 13:41	KD	16-DEC-09 DG		BCTTPH
M87994-6 1136021UF	Collected: 09-DEC-09 12:40	By: CSB	Received: 10-DEC-09	By: JB		
M87994-6	SW846 6010B	17-DEC-09 12:15	PY	14-DEC-09 EAL		AG,AS,BA,CD,CR,CU,NI,PB,SE, ZN

Internal Sample Tracking Chronicle

Loureiro Eng. Associates

Job No: M87994

UTC: 2009 Quarterly GW-Willow Pond  
Project No: 88UT907

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M87994-6	SW846 7470A	17-DEC-09 15:52	MA	17-DEC-09	MA	HG
M87994-7	Collected: 09-DEC-09 09:00 By: CSB Received: 10-DEC-09 By: JB					
1136025						
M87994-7	SW846 8260B	17-DEC-09 19:22	WC			V8260RCP
M87994-8	Collected: 09-DEC-09 13:45 By: CSB Received: 10-DEC-09 By: JB					
1136024						
M87994-8	SW846 8260B	17-DEC-09 19:50	WC			V8260RCP



## GC/MS Volatiles

5

### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

## Method Blank Summary

Page 1 of 3

**Job Number:** M87994

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1450-MB	N38674.D	1	12/17/09	WC	n/a	n/a	MSN1450

The QC reported here applies to the following samples:

Method: SW846 8260B

M87994-1, M87994-3, M87994-5, M87994-7, M87994-8

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
107-13-1	Acrylonitrile	ND	25	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	

## Method Blank Summary

Page 2 of 3

**Job Number:** M87994

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1450-MB	N38674.D	1	12/17/09	WC	n/a	n/a	MSN1450

The QC reported here applies to the following samples:

Method: SW846 8260B

M87994-1, M87994-3, M87994-5, M87994-7, M87994-8

CAS No.	Compound	Result	RL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

Method Blank Summary

Job Number: M87994  
Account: LEA Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1450-MB	N38674.D	1	12/17/09	WC	n/a	n/a	MSN1450

The QC reported here applies to the following samples: Method: SW846 8260B

M87994-1, M87994-3, M87994-5, M87994-7, M87994-8

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	90% 70-130%
2037-26-5	Toluene-D8	96% 70-130%
460-00-4	4-Bromofluorobenzene	90% 70-130%

# Blank Spike/Blank Spike Duplicate Summary

Page 1 of 3

**Job Number:** M87994

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1450-BS	N38671.D	1	12/17/09	WC	n/a	n/a	MSN1450
MSN1450-BSD	N38672.D	1	12/17/09	WC	n/a	n/a	MSN1450

The QC reported here applies to the following samples:

Method: SW846 8260B

M87994-1, M87994-3, M87994-5, M87994-7, M87994-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	46.0	92	47.3	95	3	70-130/25
107-13-1	Acrylonitrile	250	206	82	205	82	0	70-130/25
71-43-2	Benzene	50	50.4	101	50.3	101	0	70-130/25
108-86-1	Bromobenzene	50	56.3	113	55.7	111	1	70-130/25
75-27-4	Bromodichloromethane	50	45.6	91	45.8	92	0	70-130/25
75-25-2	Bromoform	50	51.8	104	52.9	106	2	70-130/25
74-83-9	Bromomethane	50	48.8	98	49.3	99	1	70-130/25
78-93-3	2-Butanone (MEK)	50	44.3	89	44.4	89	0	70-130/25
104-51-8	n-Butylbenzene	50	52.3	105	51.8	104	1	70-130/25
135-98-8	sec-Butylbenzene	50	52.8	106	52.3	105	1	70-130/25
98-06-6	tert-Butylbenzene	50	51.4	103	51.4	103	0	70-130/25
75-15-0	Carbon disulfide	50	43.1	86	42.9	86	0	70-130/25
56-23-5	Carbon tetrachloride	50	50.3	101	50.5	101	0	70-130/25
108-90-7	Chlorobenzene	50	57.6	115	57.8	116	0	70-130/25
75-00-3	Chloroethane	50	42.9	86	42.1	84	2	70-130/25
67-66-3	Chloroform	50	48.0	96	47.4	95	1	70-130/25
74-87-3	Chloromethane	50	40.2	80	40.1	80	0	70-130/25
95-49-8	o-Chlorotoluene	50	50.2	100	49.5	99	1	70-130/25
106-43-4	p-Chlorotoluene	50	50.4	101	50.0	100	1	70-130/25
96-12-8	1,2-Dibromo-3-chloropropane	50	43.1	86	43.4	87	1	70-130/25
124-48-1	Dibromochloromethane	50	52.7	105	53.2	106	1	70-130/25
106-93-4	1,2-Dibromoethane	50	58.1	116	58.9	118	1	70-130/25
95-50-1	1,2-Dichlorobenzene	50	53.9	108	53.5	107	1	70-130/25
541-73-1	1,3-Dichlorobenzene	50	53.3	107	52.8	106	1	70-130/25
106-46-7	1,4-Dichlorobenzene	50	53.0	106	52.9	106	0	70-130/25
75-71-8	Dichlorodifluoromethane	50	30.4	61* a	30.3	61* a	0	70-130/25
75-34-3	1,1-Dichloroethane	50	46.7	93	46.0	92	2	70-130/25
107-06-2	1,2-Dichloroethane	50	52.1	104	51.7	103	1	70-130/25
75-35-4	1,1-Dichloroethene	50	45.1	90	44.2	88	2	70-130/25
156-59-2	cis-1,2-Dichloroethene	50	47.6	95	46.6	93	2	70-130/25
156-60-5	trans-1,2-Dichloroethene	50	44.6	89	43.8	88	2	70-130/25
78-87-5	1,2-Dichloropropane	50	50.9	102	50.8	102	0	70-130/25
142-28-9	1,3-Dichloropropane	50	54.3	109	54.9	110	1	70-130/25
594-20-7	2,2-Dichloropropane	50	48.4	97	46.9	94	3	70-130/25
563-58-6	1,1-Dichloropropene	50	52.5	105	52.6	105	0	70-130/25
10061-01-5	cis-1,3-Dichloropropene	50	46.6	93	47.0	94	1	70-130/25

## Blank Spike/Blank Spike Duplicate Summary

Page 2 of 3

Job Number: M87994

Account: LEA Loureiro Eng. Associates

Project: UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1450-BS	N38671.D	1	12/17/09	WC	n/a	n/a	MSN1450
MSN1450-BSD	N38672.D	1	12/17/09	WC	n/a	n/a	MSN1450

The QC reported here applies to the following samples:

Method: SW846 8260B

M87994-1, M87994-3, M87994-5, M87994-7, M87994-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	50	49.6	99	50.2	100	1	70-130/25
100-41-4	Ethylbenzene	50	55.2	110	55.7	111	1	70-130/25
76-13-1	Freon 113	50	49.6	99	48.6	97	2	70-130/25
87-68-3	Hexachlorobutadiene	50	58.0	116	57.3	115	1	70-130/25
591-78-6	2-Hexanone	50	46.2	92	47.4	95	3	70-130/25
98-82-8	Isopropylbenzene	50	61.3	123	60.6	121	1	70-130/25
99-87-6	p-Isopropyltoluene	50	55.2	110	54.9	110	1	70-130/25
1634-04-4	Methyl Tert Butyl Ether	50	44.9	90	45.0	90	0	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	44.7	89	45.5	91	2	70-130/25
74-95-3	Methylene bromide	50	52.3	105	52.5	105	0	70-130/25
75-09-2	Methylene chloride	50	42.8	86	42.6	85	0	70-130/25
91-20-3	Naphthalene	50	50.5	101	50.2	100	1	70-130/25
103-65-1	n-Propylbenzene	50	51.8	104	51.3	103	1	70-130/25
100-42-5	Styrene	50	56.3	113	56.8	114	1	70-130/25
630-20-6	1,1,1,2-Tetrachloroethane	50	59.0	118	59.0	118	0	70-130/25
79-34-5	1,1,2,2-Tetrachloroethane	50	47.9	96	47.9	96	0	70-130/25
127-18-4	Tetrachloroethene	50	64.9	130	65.3	131* a	1	70-130/25
109-99-9	Tetrahydrofuran	50	38.6	77	39.3	79	2	70-130/25
108-88-3	Toluene	50	53.2	106	53.5	107	1	70-130/25
110-57-6	Trans-1,4-Dichloro-2-Butene	50	47.6	95	48.1	96	1	70-130/25
87-61-6	1,2,3-Trichlorobenzene	50	51.4	103	51.6	103	0	70-130/25
120-82-1	1,2,4-Trichlorobenzene	50	53.3	107	53.4	107	0	70-130/25
71-55-6	1,1,1-Trichloroethane	50	50.4	101	50.0	100	1	70-130/25
79-00-5	1,1,2-Trichloroethane	50	51.3	103	51.9	104	1	70-130/25
79-01-6	Trichloroethene	50	53.9	108	53.9	108	0	70-130/25
75-69-4	Trichlorofluoromethane	50	44.9	90	44.1	88	2	70-130/25
96-18-4	1,2,3-Trichloropropane	50	44.7	89	44.6	89	0	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	50.2	100	50.0	100	0	70-130/25
108-67-8	1,3,5-Trimethylbenzene	50	52.4	105	52.1	104	1	70-130/25
75-01-4	Vinyl chloride	50	43.0	86	43.4	87	1	70-130/25
	m,p-Xylene	100	113	113	113	113	0	70-130/25
95-47-6	o-Xylene	50	58.5	117	58.7	117	0	70-130/25



## Blank Spike/Blank Spike Duplicate Summary

Page 3 of 3

**Job Number:** M87994

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN1450-BS	N38671.D	1	12/17/09	WC	n/a	n/a	MSN1450
MSN1450-BSD	N38672.D	1	12/17/09	WC	n/a	n/a	MSN1450

The QC reported here applies to the following samples:

Method: SW846 8260B

M87994-1, M87994-3, M87994-5, M87994-7, M87994-8

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	91%	91%	70-130%
2037-26-5	Toluene-D8	96%	97%	70-130%
460-00-4	4-Bromofluorobenzene	89%	88%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 3

**Job Number:** M87994**Account:** LEA Loureiro Eng. Associates**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M87989-4MS	N38685.D	5	12/17/09	WC	n/a	n/a	MSN1450
M87989-4MSD	N38686.D	5	12/17/09	WC	n/a	n/a	MSN1450
M87989-4	N38678.D	1	12/17/09	WC	n/a	n/a	MSN1450

**The QC reported here applies to the following samples:****Method:** SW846 8260B

M87994-1, M87994-3, M87994-5, M87994-7, M87994-8

CAS No.	Compound	M87989-4 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND	250	215	86	216	86	0	70-130/30
107-13-1	Acrylonitrile	ND	1250	1050	84	1060	85	1	70-130/30
71-43-2	Benzene	ND	250	251	100	254	102	1	70-130/30
108-86-1	Bromobenzene	ND	250	273	109	277	111	1	70-130/30
75-27-4	Bromodichloromethane	ND	250	232	93	232	93	0	70-130/30
75-25-2	Bromoform	ND	250	251	100	257	103	2	70-130/30
74-83-9	Bromomethane	ND	250	250	100	262	105	5	70-130/30
78-93-3	2-Butanone (MEK)	ND	250	207	83	213	85	3	70-130/30
104-51-8	n-Butylbenzene	ND	250	252	101	256	102	2	70-130/30
135-98-8	sec-Butylbenzene	ND	250	254	102	260	104	2	70-130/30
98-06-6	tert-Butylbenzene	ND	250	251	100	255	102	2	70-130/30
75-15-0	Carbon disulfide	ND	250	213	85	217	87	2	70-130/30
56-23-5	Carbon tetrachloride	ND	250	250	100	251	100	0	70-130/30
108-90-7	Chlorobenzene	ND	250	283	113	288	115	2	70-130/30
75-00-3	Chloroethane	ND	250	219	88	219	88	0	70-130/30
67-66-3	Chloroform	ND	250	244	98	246	98	1	70-130/30
74-87-3	Chloromethane	ND	250	211	84	217	87	3	70-130/30
95-49-8	o-Chlorotoluene	ND	250	244	98	250	100	2	70-130/30
106-43-4	p-Chlorotoluene	ND	250	248	99	250	100	1	70-130/30
96-12-8	1,2-Dibromo-3-chloropropane	ND	250	214	86	219	88	2	70-130/30
124-48-1	Dibromochloromethane	ND	250	259	104	263	105	2	70-130/30
106-93-4	1,2-Dibromoethane	ND	250	288	115	292	117	1	70-130/30
95-50-1	1,2-Dichlorobenzene	ND	250	262	105	267	107	2	70-130/30
541-73-1	1,3-Dichlorobenzene	ND	250	260	104	263	105	1	70-130/30
106-46-7	1,4-Dichlorobenzene	ND	250	257	103	261	104	2	70-130/30
75-71-8	Dichlorodifluoromethane	ND	250	146	58* a	148	59* a	1	70-130/30
75-34-3	1,1-Dichloroethane	ND	250	234	94	236	94	1	70-130/30
107-06-2	1,2-Dichloroethane	ND	250	272	109	270	108	1	70-130/30
75-35-4	1,1-Dichloroethene	ND	250	216	86	223	89	3	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND	250	235	94	239	96	2	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND	250	222	89	223	89	0	70-130/30
78-87-5	1,2-Dichloropropane	ND	250	253	101	258	103	2	70-130/30
142-28-9	1,3-Dichloropropane	ND	250	266	106	272	109	2	70-130/30
594-20-7	2,2-Dichloropropane	ND	250	238	95	237	95	0	70-130/30
563-58-6	1,1-Dichloropropene	ND	250	257	103	261	104	2	70-130/30
10061-01-5	cis-1,3-Dichloropropene	ND	250	232	93	234	94	1	70-130/30

# Matrix Spike/Matrix Spike Duplicate Summary

Page 2 of 3

**Job Number:** M87994

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M87989-4MS	N38685.D	5	12/17/09	WC	n/a	n/a	MSN1450
M87989-4MSD	N38686.D	5	12/17/09	WC	n/a	n/a	MSN1450
M87989-4	N38678.D	1	12/17/09	WC	n/a	n/a	MSN1450

The QC reported here applies to the following samples:

Method: SW846 8260B

M87994-1, M87994-3, M87994-5, M87994-7, M87994-8

CAS No.	Compound	M87989-4 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	ND	250	251	100	249	100	1	70-130/30
100-41-4	Ethylbenzene	ND	250	271	108	276	110	2	70-130/30
76-13-1	Freon 113	ND	250	229	92	232	93	1	70-130/30
87-68-3	Hexachlorobutadiene	ND	250	270	108	279	112	3	70-130/30
591-78-6	2-Hexanone	ND	250	228	91	233	93	2	70-130/30
98-82-8	Isopropylbenzene	ND	250	295	118	301	120	2	70-130/30
99-87-6	p-Isopropyltoluene	ND	250	269	108	272	109	1	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND	250	227	91	228	91	0	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	250	232	93	232	93	0	70-130/30
74-95-3	Methylene bromide	ND	250	267	107	268	107	0	70-130/30
75-09-2	Methylene chloride	ND	250	216	86	219	88	1	70-130/30
91-20-3	Naphthalene	ND	250	241	96	251	100	4	70-130/30
103-65-1	n-Propylbenzene	ND	250	252	101	256	102	2	70-130/30
100-42-5	Styrene	ND	250	275	110	282	113	3	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND	250	288	115	292	117	1	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND	250	236	94	240	96	2	70-130/30
127-18-4	Tetrachloroethene	ND	250	308	123	313	125	2	70-130/30
109-99-9	Tetrahydrofuran	ND	250	202	81	203	81	0	70-130/30
108-88-3	Toluene	ND	250	266	106	269	108	1	70-130/30
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	250	232	93	233	93	0	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND	250	246	98	254	102	3	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND	250	255	102	263	105	3	70-130/30
71-55-6	1,1,1-Trichloroethane	ND	250	253	101	258	103	2	70-130/30
79-00-5	1,1,2-Trichloroethane	ND	250	260	104	258	103	1	70-130/30
79-01-6	Trichloroethene	ND	250	269	108	274	110	2	70-130/30
75-69-4	Trichlorofluoromethane	ND	250	215	86	218	87	1	70-130/30
96-18-4	1,2,3-Trichloropropane	ND	250	218	87	221	88	1	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND	250	245	98	248	99	1	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND	250	255	102	260	104	2	70-130/30
75-01-4	Vinyl chloride	ND	250	219	88	224	90	2	70-130/30
	m,p-Xylene	ND	500	549	110	565	113	3	70-130/30
95-47-6	o-Xylene	ND	250	287	115	294	118	2	70-130/30

## Matrix Spike/Matrix Spike Duplicate Summary

Page 3 of 3

**Job Number:** M87994

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M87989-4MS	N38685.D	5	12/17/09	WC	n/a	n/a	MSN1450
M87989-4MSD	N38686.D	5	12/17/09	WC	n/a	n/a	MSN1450
M87989-4	N38678.D	1	12/17/09	WC	n/a	n/a	MSN1450

The QC reported here applies to the following samples:

Method: SW846 8260B

M87994-1, M87994-3, M87994-5, M87994-7, M87994-8

CAS No.	Surrogate Recoveries	MS	MSD	M87989-4	Limits
1868-53-7	Dibromofluoromethane	92%	92%	91%	70-130%
2037-26-5	Toluene-D8	98%	97%	96%	70-130%
460-00-4	4-Bromofluorobenzene	88%	88%	90%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

# Volatile Internal Standard Area Summary

Page 1 of 1

**Job Number:** M87994  
**Account:** LEA Loureiro Eng. Associates  
**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Check Std:** MSN1450-CC1437  
**Lab File ID:** N38670.D  
**Instrument ID:** GCMSN  
**Injection Date:** 12/17/09  
**Injection Time:** 09:33  
**Method:** SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	202132	8.64	319651	9.50	148988	12.74	148217	15.30	79768	6.22
Upper Limit <sup>a</sup>	404264	9.14	639302	10.00	297976	13.24	296434	15.80	159536	6.72
Lower Limit <sup>b</sup>	101066	8.14	159826	9.00	74494	12.24	74109	14.80	39884	5.72

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSN1450-BS	202906	8.64	324162	9.50	150278	12.75	146451	15.30	79827	6.22
MSN1450-BSD	204683	8.64	322842	9.50	148919	12.75	147352	15.30	82947	6.22
MSN1450-MB	200952	8.64	318729	9.50	142342	12.75	138361	15.31	79517	6.22
ZZZZZZ	195280	8.64	311669	9.50	140035	12.75	136588	15.31	80878	6.22
ZZZZZZ	196132	8.64	308087	9.50	139634	12.75	135395	15.31	75569	6.22
ZZZZZZ	192426	8.64	303479	9.50	137256	12.75	132787	15.31	80416	6.22
M87989-4	189538	8.64	302784	9.50	137794	12.75	132622	15.31	80781	6.22
ZZZZZZ	189374	8.64	303026	9.50	136663	12.75	133619	15.31	78522	6.22
ZZZZZZ	189862	8.64	296957	9.50	135332	12.75	130775	15.30	80507	6.22
ZZZZZZ	187155	8.64	298111	9.50	135540	12.75	131944	15.31	77102	6.22
ZZZZZZ	185643	8.64	295164	9.50	136003	12.75	131362	15.31	80747	6.22
ZZZZZZ	185604	8.64	295153	9.50	135308	12.74	129840	15.31	77534	6.22
ZZZZZZ	185105	8.64	296287	9.50	134890	12.75	129979	15.30	76926	6.22
M87989-4MS	189541	8.64	302414	9.50	143869	12.75	141388	15.30	79019	6.22
M87989-4MSD	193676	8.64	309612	9.50	144856	12.75	143050	15.31	79101	6.22
M87994-1	188311	8.64	298386	9.50	135607	12.75	131576	15.30	80649	6.22
M87994-3	186338	8.64	296862	9.50	135686	12.75	131503	15.30	74589	6.22
M87994-5	186003	8.64	295640	9.50	135617	12.75	129552	15.30	83453	6.22
M87994-7	184677	8.64	295999	9.50	134481	12.74	128088	15.30	70757	6.22
M87994-8	183163	8.64	294011	9.50	133271	12.75	128770	15.30	77537	6.22

**IS 1** = Pentafluorobenzene  
**IS 2** = 1,4-Difluorobenzene  
**IS 3** = Chlorobenzene-D5  
**IS 4** = 1,4-Dichlorobenzene-d4  
**IS 5** = Tert Butyl Alcohol-D9

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

# Volatile Surrogate Recovery Summary

Page 1 of 1

**Job Number:** M87994

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Method:** SW846 8260B

**Matrix:** AQ

**Samples and QC shown here apply to the above method**

Lab Sample ID	Lab File ID	S1	S2	S3
M87994-1	N38688.D	90.0	97.0	90.0
M87994-3	N38689.D	91.0	97.0	89.0
M87994-5	N38690.D	91.0	97.0	90.0
M87994-7	N38691.D	91.0	97.0	91.0
M87994-8	N38692.D	92.0	97.0	90.0
M87989-4MS	N38685.D	92.0	98.0	88.0
M87989-4MSD	N38686.D	92.0	97.0	88.0
MSN1450-BS	N38671.D	91.0	96.0	89.0
MSN1450-BSD	N38672.D	91.0	97.0	88.0
MSN1450-MB	N38674.D	90.0	96.0	90.0

## Surrogate Compounds

## Recovery Limits

**S1** = Dibromofluoromethane

70-130%

**S2** = Toluene-D8

70-130%

**S3** = 4-Bromofluorobenzene

70-130%



## GC Semi-volatiles

### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries

## Method Blank Summary

Page 1 of 1

**Job Number:** M87994

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP20208-MB	BC35644.D	1	12/18/09	KD	12/16/09	OP20208	GBC1822

The QC reported here applies to the following samples:

Method: CT-ETPH 7/06

M87994-1, M87994-3, M87994-5

CAS No.	Compound	Result	RL	Units	Q
	CT-DRO (C9-C36)	ND	0.080	mg/l	

CAS No.	Surrogate Recoveries	Limits
3386-33-2	1-Chlorooctadecane	108% 50-149%



## Method Blank Summary

Page 1 of 1

**Job Number:** M87994

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP20193-MB	EF72276.D	1	12/18/09	SL	12/14/09	OP20193	GEF3312

The QC reported here applies to the following samples:

Method: SW846 8082

M87994-1, M87994-3, M87994-5

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	ug/l	

CAS No.	Surrogate Recoveries	Results	Limits
877-09-8	Tetrachloro-m-xylene	88%	30-150%
877-09-8	Tetrachloro-m-xylene	89%	30-150%
2051-24-3	Decachlorobiphenyl	76%	30-150%
2051-24-3	Decachlorobiphenyl	75%	30-150%

## Blank Spike Summary

Page 1 of 1

**Job Number:** M87994

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP20208-BS	BC35646.D	1	12/18/09	KD	12/16/09	OP20208	GBC1822

The QC reported here applies to the following samples:

Method: CT-ETPH 7/06

M87994-1, M87994-3, M87994-5

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	CT-DRO (C9-C36)	0.7	0.551	79	60-120

CAS No.	Surrogate Recoveries	BSP	Limits
3386-33-2	1-Chlorooctadecane	109%	50-149%

6.2.1

6

## Blank Spike Summary

Page 1 of 1

**Job Number:** M87994

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP20193-BS	EF72277.D	1	12/18/09	SL	12/14/09	OP20193	GEF3312

The QC reported here applies to the following samples:

Method: SW846 8082

M87994-1, M87994-3, M87994-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
12674-11-2	Aroclor 1016	2	2.0	100	40-140
11104-28-2	Aroclor 1221		ND		40-140
11141-16-5	Aroclor 1232		ND		40-140
53469-21-9	Aroclor 1242		ND		40-140
12672-29-6	Aroclor 1248		ND		40-140
11097-69-1	Aroclor 1254		ND		40-140
11096-82-5	Aroclor 1260	2	1.9	95	40-140
37324-23-5	Aroclor 1262		ND		40-140
11100-14-4	Aroclor 1268		ND		40-140

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	110%	30-150%
877-09-8	Tetrachloro-m-xylene	115%	30-150%
2051-24-3	Decachlorobiphenyl	81%	30-150%
2051-24-3	Decachlorobiphenyl	80%	30-150%

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

**Job Number:** M87994

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP20208-MS	BC35648.D	1	12/18/09	KD	12/16/09	OP20208	GBC1822
OP20208-MSD	BC35650.D	1	12/18/09	KD	12/16/09	OP20208	GBC1822
M88079-8	BC35652.D	1	12/18/09	KD	12/16/09	OP20208	GBC1822

The QC reported here applies to the following samples:

Method: CT-ETPH 7/06

M87994-1, M87994-3, M87994-5

CAS No.	Compound	M88079-8 mg/l	Spike Q	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	CT-DRO (C9-C36)	ND	0.7	0.494	71	0.489	70	1	50-129/26

CAS No.	Surrogate Recoveries	MS	MSD	M88079-8	Limits
3386-33-2	1-Chlorooctadecane	93%	94%	98%	50-149%

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

**Job Number:** M87994

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP20193-MS	EF72279.D	1	12/18/09	SL	12/14/09	OP20193	GEF3312
OP20193-MSD	EF72280.D	1	12/18/09	SL	12/14/09	OP20193	GEF3312
M87925-22	EF72281.D	1	12/18/09	SL	12/14/09	OP20193	GEF3312

The QC reported here applies to the following samples:

Method: SW846 8082

M87994-1, M87994-3, M87994-5

CAS No.	Compound	M87925-22 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	ND	2.5	2.6	104	2.3	92	12	40-140/50
11104-28-2	Aroclor 1221	ND		ND		ND		nc	40-140/50
11141-16-5	Aroclor 1232	ND		ND		ND		nc	40-140/50
53469-21-9	Aroclor 1242	ND		ND		ND		nc	40-140/50
12672-29-6	Aroclor 1248	ND		ND		ND		nc	40-140/50
11097-69-1	Aroclor 1254	ND		ND		ND		nc	40-140/50
11096-82-5	Aroclor 1260	ND	2.5	2.3	92	2.2	88	4	40-140/50
37324-23-5	Aroclor 1262	ND		ND		ND		nc	40-140/50
11100-14-4	Aroclor 1268	ND		ND		ND		nc	40-140/50

CAS No.	Surrogate Recoveries	MS	MSD	M87925-22	Limits
877-09-8	Tetrachloro-m-xylene	114%	101%	89%	30-150%
877-09-8	Tetrachloro-m-xylene	117%	101%	97%	30-150%
2051-24-3	Decachlorobiphenyl	53%	62%	56%	30-150%
2051-24-3	Decachlorobiphenyl	51%	56%	55%	30-150%

Semivolatile Surrogate Recovery Summary

Job Number: M87994  
Account: LEA Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

Method: CT-ETPH 7/06	Matrix: AQ
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 <sup>a</sup>
M87994-1	BC35800.D	81.0
M87994-3	BC35802.D	82.0
M87994-5	BC35804.D	71.0
OP20208-BS	BC35646.D	109.0
OP20208-MB	BC35644.D	108.0
OP20208-MS	BC35648.D	93.0
OP20208-MSD	BC35650.D	94.0

Surrogate Compounds	Recovery Limits
S1 = 1-Chlorooctadecane	50-149%

(a) Recovery from GC signal #1

# Semivolatile Surrogate Recovery Summary

Page 1 of 1

**Job Number:** M87994

**Account:** LEA Loureiro Eng. Associates

**Project:** UTC: 2009 Quarterly GW-Willow Pond

**Method:** SW846 8082

**Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 <sup>a</sup>	S1 <sup>b</sup>	S2 <sup>a</sup>	S2 <sup>b</sup>
M87994-1	EF72388.D	59.0	88.0	94.0	97.0
M87994-3	EF72389.D	99.0	107.0	92.0	92.0
M87994-5	EF72390.D	83.0	93.0	82.0	81.0
OP20193-BS	EF72277.D	110.0	115.0	81.0	80.0
OP20193-MB	EF72276.D	88.0	89.0	76.0	75.0
OP20193-MS	EF72279.D	114.0	117.0	53.0	51.0
OP20193-MSD	EF72280.D	101.0	101.0	62.0	56.0

## Surrogate Compounds

## Recovery Limits

S1 = Tetrachloro-m-xylene

30-150%

S2 = Decachlorobiphenyl

30-150%

(a) Recovery from GC signal #1

(b) Recovery from GC signal #2

6.4.2

6



## Metals Analysis

### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries



BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: M87994  
Account: LEA - Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14587  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date: 12/14/09

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	27	40		
Antimony	6.0	1.4	1.6		
Arsenic	10	1	1.8	0.0	<10
Barium	200	.57	1.1	3.9	<200
Beryllium	4.0	.15	.4		
Boron	100	.65	2.3		
Cadmium	4.0	.24	1.9	-0.20	<4.0
Calcium	5000	7.6	15		
Chromium	10	.81	1.1	-0.10	<10
Cobalt	50	.25	.3		
Copper	25	2.2	4	-0.70	<25
Gold	50	1.1	4.2		
Iron	100	3.7	13		
Lead	5.0	1.1	2.7	-0.80	<5.0
Magnesium	5000	37	77		
Manganese	15	.12	1.1		
Molybdenum	100	.22	.8		
Nickel	40	.24	1.3	-0.20	<40
Palladium	50	2.2	4		
Platinum	50	9.3	13		
Potassium	5000	39	46		
Selenium	10	1.9	3.5	0.60	<10
Silicon	100	8.9	36		
Silver	5.0	.54	1.3	0.20	<5.0
Sodium	5000	61	160		
Strontium	10	.24	.3		
Thallium	10	1.2	1.3		
Tin	100	.65	1.3		
Titanium	50	.74	.8		
Tungsten	100	5.6	8		
Vanadium	30	.68	1.6		
Zinc	20	.74	1.5	-0.70	<20

Associated samples MP14587: M87994-2, M87994-4, M87994-6

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: M87994  
Account: LEA - Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14587  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date:

Metal

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: M87994  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14587  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date:

12/14/09

12/14/09

Metal	M87994-2 Original MS		Spikelot MPICP	% Rec	QC Limits	M87994-2 Original DUP		RPD	QC Limits
Aluminum									
Antimony	anr								
Arsenic	0.0	516	500	103.2	75-125	0.0	0.0	NC	0-20
Barium	82.2	2020	2000	96.9	75-125	82.2	82.0	0.2	0-20
Beryllium	anr								
Boron									
Cadmium	0.0	513	500	102.6	75-125	0.0	0.0	NC	0-20
Calcium									
Chromium	0.0	465	500	93.0	75-125	0.0	1.0	200.0(a)	0-20
Cobalt									
Copper	0.0	497	500	99.4	75-125	0.0	2.7	200.0(a)	0-20
Gold									
Iron	anr								
Lead	0.0	993	1000	99.3	75-125	0.0	0.0	NC	0-20
Magnesium									
Manganese	anr								
Molybdenum									
Nickel	0.0	490	500	98.0	75-125	0.0	0.0	NC	0-20
Palladium									
Platinum									
Potassium									
Selenium	0.0	526	500	105.2	75-125	0.0	0.0	NC	0-20
Silicon									
Silver	0.0	217	200	108.5	75-125	0.0	0.0	NC	0-20
Sodium									
Strontium									
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium									
Zinc	0.0	486	500	97.2	75-125	0.0	0.0	NC	0-20

Associated samples MP14587: M87994-2, M87994-4, M87994-6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: M87994  
Account: LEA - Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14587  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date:

Metal

Results < IDL are shown as zero for calculation purposes

- (\*) Outside of QC limits
- (N) Matrix Spike Rec. outside of QC limits
- (anr) Analyte not requested
- (a) RPD acceptable due to low duplicate and sample concentrations.

## SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: M87994  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14587  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 12/14/09

12/14/09

Metal	BSP Result	Spikelot MPICP	% Rec	QC Limits	BSD Result	Spikelot MPICP	% Rec	BSD RPD	QC Limit
Aluminum									
Antimony	anr								
Arsenic	512	500	102.4	80-120	513	500	102.6	0.2	20
Barium	1940	2000	97.0	80-120	1920	2000	96.0	1.0	20
Beryllium	anr								
Boron									
Cadmium	507	500	101.4	80-120	504	500	100.8	0.6	20
Calcium									
Chromium	469	500	93.8	80-120	464	500	92.8	1.1	20
Cobalt									
Copper	489	500	97.8	80-120	485	500	97.0	0.8	20
Gold									
Iron	anr								
Lead	995	1000	99.5	80-120	995	1000	99.5	0.0	20
Magnesium									
Manganese	anr								
Molybdenum									
Nickel	489	500	97.8	80-120	489	500	97.8	0.0	20
Palladium									
Platinum									
Potassium									
Selenium	523	500	104.6	80-120	528	500	105.6	1.0	20
Silicon									
Silver	218	200	109.0	80-120	214	200	107.0	1.9	20
Sodium									
Strontium									
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium									
Zinc	490	500	98.0	80-120	486	500	97.2	0.8	20

Associated samples MP14587: M87994-2, M87994-4, M87994-6

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: M87994  
Account: LEA - Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14587  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date:

Metal

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: M87994  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14587  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 12/14/09

Metal	M87994-2 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	anr			
Arsenic	0.00	0.00	NC	0-10
Barium	82.2	96.2	17.0 (a)	0-10
Beryllium	anr			
Boron				
Cadmium	0.00	0.00	NC	0-10
Calcium				
Chromium	0.00	0.00	NC	0-10
Cobalt				
Copper	0.00	0.00	NC	0-10
Gold				
Iron	anr			
Lead	0.00	0.00	NC	0-10
Magnesium				
Manganese	anr			
Molybdenum				
Nickel	0.00	0.00	NC	0-10
Palladium				
Platinum				
Potassium				
Selenium	0.00	0.00	NC	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium				
Strontium				
Thallium	anr			
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc	0.00	0.00	NC	0-10

Associated samples MP14587: M87994-2, M87994-4, M87994-6

7.1.4  
7

SERIAL DILUTION RESULTS SUMMARY

Login Number: M87994  
Account: LEA - Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14587  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date:

Metal

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

(a) Serial Dilution RPD acceptable due to low duplicate and sample concentrations.

7.1.4

7



BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: M87994  
Account: LEA - Loureiro Eng. Associates  
Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14599  
Matrix Type: AQUEOUS

Methods: SW846 7470A  
Units: ug/l

Prep Date: 12/17/09

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.20	.035	.048	0.022	<0.20

Associated samples MP14599: M87994-2, M87994-4, M87994-6

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

7.2.1

7

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: M87994  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14599  
 Matrix Type: AQUEOUS

Methods: SW846 7470A  
 Units: ug/l

Prep Date: 12/17/09 12/17/09

Metal	M87994-2 Original MS		Spikelot HGRWS1 % Rec		QC Limits	M87994-2 Original DUP		RPD	QC Limits
Mercury	0.0	2.9	3	96.7	75-125	0.0	0.0	NC	0-20

Associated samples MP14599: M87994-2, M87994-4, M87994-6

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

7.2.2

7

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: M87994  
 Account: LEA - Loureiro Eng. Associates  
 Project: UTC: 2009 Quarterly GW-Willow Pond

QC Batch ID: MP14599  
 Matrix Type: AQUEOUS

Methods: SW846 7470A  
 Units: ug/l

Prep Date: 12/17/09

12/17/09

Metal	BSP Result	Spikelot HGRWS1	% Rec	QC Limits	BSD Result	Spikelot HGRWS1	% Rec	BSD RPD	QC Limit
Mercury	2.9	3	96.7	80-120	2.8	3	93.3	3.5	20

Associated samples MP14599: M87994-2, M87994-4, M87994-6

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (anr) Analyte not requested

7.2.3

7

## **Appendix C**

### **Quality Assurance/Quality Control Documentation**



## APPENDIX C

### QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES AND EVALUATION

#### 1. QUALITY ASSURANCE /QUALITY CONTROL SUMMARY

During the course of the 2009 Post-Remediation Groundwater Monitoring activities, analytical and observational data were obtained for the Willow Brook and Willow Brook Pond Remediation Area (hereinafter referred to as the “Project Area”). These data included analytical data for groundwater samples, field activities documentation, sample tracking documentation, and other documentation associated with sample collection and analysis.

During the course of groundwater monitoring activities, the need to maintain accurate and complete documentation was a paramount concern. Included in this document is a description of the activities undertaken to document, manage, verify, organize, and present the data compiled; a discussion of the types and quantities of Quality Assurance/Quality Control (QA/QC) samples that were collected during field activities; and an evaluation of the analytical data generated as a result of laboratory QA/QC procedures. The evaluation of laboratory QA/QC information includes a Data Quality Assessment (DQA) and a Data Usability Evaluation (DUE) that was performed in accordance with the methodology described in the November 2007 guidance document entitled, *Reasonable Confidence Protocols* and presented in more detail in the May 2009 document entitled *Laboratory Quality Assurance Quality Control, Data Quality Assessment, Data Usability Evaluation Guidance Document* published by the Connecticut Department of Environmental Protection (CT DEP).



## **APPENDIX C**

### **QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES AND EVALUATION**

#### **2. DATA MANAGEMENT PROCEDURES**

This section has been organized to present those activities performed by personnel to document the record of post-remediation groundwater monitoring activities performed in the field and discuss the QA/QC activities performed in the field. These discussions are followed by a description of the activities undertaken by personnel in the office to ensure the necessary data have been accumulated, that the data have been properly managed, tracked, verified, entered into the database repository, presented appropriately, and at the conclusion of monitoring events, filed for future use.

##### **2.1 Standard Operating Procedures**

Prior to conducting groundwater monitoring activities for the Project Area, Standard Operating Procedures (SOPs) had been developed by Loureiro Engineering Associates, Inc. (LEA) for the most common procedures associated with the sampling and analysis of various media for environmental investigations. Development of these SOPs has taken into account the need for precision, accuracy, completeness, representativeness, and comparability of data.

Although it is understood that there are limits on data accuracy and precision that are inherent in the collection and analysis of samples and in the operation of measuring devices, adherence to standard procedures increases consistency and the level of confidence with which the data collected are evaluated. Data collected under standard procedures can also be used more reliably in comparing results over time on a given project or from other projects or published information.

Data evaluation is also dependent upon the representativeness of the samples or measurements collected and the completeness of information associated with collection of the data. Collection and measurement techniques identified in the SOPs have been designed to take these factors into account, thus increasing the level of confidence that can be placed in the data.

Although adherence to SOPs is imperative for the successful completion of any project, there will be instances where exceptions to the SOPs must be made to obtain reliable data. When exceptions are made, documentation of both the situation requiring deviation and the actual deviation in procedure was recorded in the field documentation.

## **APPENDIX C**

### **QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES AND EVALUATION**

Each SOP was developed by LEA personnel experienced in the performance of the specific activity. At least two senior-level people, one being the Director of Quality, reviewed the SOP to ensure that the identified procedures satisfy the stated objectives and that the prescribed procedures are technically correct, appropriately applied, and in conformance with applicable regulatory criteria and standard practices. These individuals signified their approval by signing and dating the SOP.

SOPs for the following activities have been included as Attachment C-1 of this document.

- Low Flow Sampling;
- Liquid Sample Collection and Field Analysis; and
- Quality Assurance/Quality Control Measures for Field Activities.

#### **2.2 Field Quality Assurance Procedures**

Field QA/QC procedures begin with the use and maintenance of field equipment and instrumentation and include the proper calibration of the equipment.

##### **2.2.1 Use and Maintenance of Field Equipment and Instrumentation**

Field equipment and instruments were operated and maintained in a manner that is consistent with the manufacturer's recommended practices. Deviations from standard use of the equipment or required repairs or adaptations made in the field were noted in the Field Record and/or field logbook. Operation and maintenance manuals for equipment were kept in a single location that was known and accessible to personnel that would be likely to use the equipment.

Field personnel either returned equipment in a condition that permitted its optimal use on the following day of field operations, or notified the appropriate personnel so that repairs/replacements could be arranged in an expedient fashion. The use of expendable equipment was recorded and reported to appropriate personnel so replacements could be ordered in a timely manner and an adequate supply was available.

Prior to starting a particular field investigation, the field services manager or designated personnel ensured that adequate supplies and equipment were available for project completion.



## APPENDIX C

### QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES AND EVALUATION

It was the responsibility of field personnel to inform the field services manager or other authorized personnel that supplies were depleted and that re-ordering was necessary.

#### 2.2.2 Calibration Procedures and Frequency

Instruments and equipment were calibrated with sufficient frequency and in such a manner that accuracy and reproducibility of results were consistent with the appropriate manufacturer's specifications or project-specific requirements. Calibration was performed at intervals recommended by the manufacturer or more frequently, as conditions dictate. The field instruments that required calibration during the groundwater monitoring activities were the photoionization detector (PID); the pH, dissolved oxygen, and specific conductance sensors of the flow-through cells; and the turbidity meters. Documentation of the calibration that was performed was recorded on field documentation forms, analytical records, or other appropriate daily record of activities.

#### 2.2.3 Decontamination

Decontamination procedures are described in applicable SOPs presented in Attachment C-1. These procedures were designed to avoid cross-contamination between samples, the transport of contaminated material between onsite locations, and the transport of contaminated material from onsite or off-site locations. As described in Section 3.2 of this appendix, equipment blank samples were collected to confirm the efficiency of decontamination procedures during groundwater sampling activities.

#### 2.3 Sample Tracking

Sample tracking activities focus on the timely assignment and tracking of information relevant to field samples collected during the groundwater sampling activities. Samples collected during the groundwater sampling activities were designated using the procedures discussed below.

Field sample tracking included the following tasks:

- Assignment of sample identification numbers and other sample identifiers to new samples to be taken, and entry to a tracking system;
- Production of sample bottle labels from the tracking system;





## APPENDIX C

### QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES AND EVALUATION

- Completion of chain-of-custody forms, and entry of this information to the tracking system;
- Entry of additional tracking dates to the tracking system;
- QA checking of the sample tracking information, and processing of change requests; and,
- Production of tracking reports and summary sheets, with distribution to appropriate project staff.

A computer-based sample-tracking system, based on a dBase<sup>®</sup> database computer program, was used for sample tracking.

#### 2.3.1 Sample Location Identification

Samples were designated with location identifiers previously assigned using the procedure described in the SOPs included in Attachment C-1. In general, sample identification information included the sample type (e.g. monitoring well.); and the sample point number.

Monitoring wells have been provided with location identifiers using a systematic method to prevent duplication of location identifiers. Additionally, a two letter prefix identifying the project area (in this case “WT”) was also included in the location identifiers. For example, monitoring well number 40 is designated as WT-MW-40.

The system of location identifiers provides a relatively easy means of finding the referenced locations on site drawings.

#### 2.3.2 Sample Labeling and Custody

Prior to sample collection, project-specific sample numbers were obtained, and labels were generated with all required information, as noted in the sample collection SOPs. Each sample was labeled using waterproof ink on a computer-generated label, and sealed immediately after collection. At a minimum, each sample label contained the following information:

- Project number;
- Date;
- Sample number; and
- Time of sample collection.



## APPENDIX C

### QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES AND EVALUATION

In order to ensure accurate identification of all sample containers, sample labels and tags were firmly affixed to the sample container. The sampler was responsible for ensuring that the sample container was dry enough for the label to remain securely attached, or used a suitable transparent adhesive tape when the adhesive labels were not applicable or there was any question as to whether the gummed label would be secure.

All sampling information was recorded on the field sampling records. Written chain-of-custody procedures were followed whenever samples were collected, transferred, stored, analyzed, or destroyed. The objective of these procedures was to create an accurate written record that could be used to trace the possession and handling of the samples from the point of collection through analysis. A sample was determined to be in someone's "custody" under any of the following conditions:

- It was in one's actual possession;
- It was in one's view, after being in one's physical possession;
- It was placed and kept in a locked location after being in one's physical possession; and
- It was kept in a secured area that is restricted to authorized personnel only.

Each time sample custody changed hands, the chain-of-custody form indicated that change. All efforts were made to limit the number of people involved in the collection and handling of samples. The field sampler was responsible for the care and custody of the samples collected until they were transferred under the appropriate chain-of-custody procedures. Specific chain-of-custody procedures are described in the LEA SOP for *Quality Assurance/Quality Control Measures for Field Activities* included in Attachment C-1 of this document.

#### 2.3.3 Field Documentation

Daily Field Reports and other project information tracking forms were used to record general field data collection activities or pertinent field observation or occurrences. These forms consist of the loose-leaf field documentation forms completed daily by field crews. Entries were made in waterproof ink and each page was consecutively numbered for each sampling day. Each daily entry included the following information:



## APPENDIX C

### QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES AND EVALUATION

- Name of person recording information;
- Names of all field personnel;
- Project name and number;
- Date;
- Start and end times;
- Weather conditions;
- Equipment used;
- Samples collected;
- Field parameters measured; and,
- Equipment calibration performed.

Other information that was recorded in the field logs included the level of personal protective equipment used, difficulties, accidents, incidents, equipment problems or malfunctions, or deviations from proposed scope of work.

Any corrections made in the field logs were crossed out, not erased, and initialed by the person making the correction. Each page of the logs was signed by the person responsible for recording information on that day. All lines on a page, and all pages, were used or crossed out and initialed.

This information was transmitted from field to office personnel at the end of each working day, or as soon thereafter as possible, for input into LEA's Information Management System (IMS). The Daily Field Reports and forms, in turn, were placed in the central project file.

#### 2.3.4 Mapping

The location of each monitoring well was previously surveyed by a State of Connecticut licensed surveyor. All of the information used to locate sampling points within the Project Area was transferred to AutoCAD® drawings that served as the base maps for data presentation in this report.



## APPENDIX C

### QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES AND EVALUATION

#### 2.4 Field Sampling Quality Assurance

QA samples were collected in general accordance with the LEA SOP for *QA/QC Measures for Field Activities*, included in Attachment C-1 of this document. The purpose of the QA samples is to confirm the reliability and validity of the field data gathered during the course of the groundwater monitoring activities. Field duplicate samples were used to provide a measurement of the consistency of samples collected from the same monitoring well and an estimate of variance and bias. Trip blank samples and equipment blank samples were used to provide a measurement of cross-contamination sources and decontamination efficiency, respectively, for groundwater sampling. Performance Evaluation (PE) samples were used to assess the overall accuracy and bias of the analytical methods being used and provide an indication of overall laboratory performance. Section 3 provides a discussion of the QA/QC sampling results.

#### 2.5 Sample Shipping

Following sample collection, the filled sample containers were placed in coolers and packed appropriately to avoid bottle breakage. Either freezer packs or ice packed in re-sealable plastic bags or plastic containers were placed in the coolers to keep the samples at a temperature less than or equal to 4° Celsius during transport. At the end of each sampling day, samples were picked up by the analytical laboratory's courier service or brought back to LEA's Plainville, Connecticut, office and placed into LEA's External Laboratory Refrigerator for pick up the next day by the analytical laboratory's courier service.

##### 2.5.1 Samples Submitted for Laboratory Analysis

Groundwater samples collected and submitted to the laboratory for analysis were appropriately labeled and logged on chain-of-custody forms. Copies of completed chain-of-custody records for samples submitted for analysis or archiving were submitted to the Project Manager at the end of each working day or as soon thereafter as possible.

##### 2.5.2 Laboratory Analytical Results

The analytical results provided by the laboratory were provided in electronic data deliverable (EDD) format as well as .pdf format to the Project Manager. After documentation of receipt of the results, the EDD was entered into the electronic database by the Database Manager.



## APPENDIX C

### QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES AND EVALUATION

#### 2.6 Database Management

The electronic analytical database was maintained in the LEA IMS in a dBASE® format. The database management functions are described in the following paragraphs.

##### 2.6.1 Database Administration

Database administration included coordination of data entry and verification and review of data for completeness and correctness. The Database Manager interfaced with the Project Manager and field personnel to ensure that the database met the project objectives.

##### 2.6.2 Electronic Data Entry

The EDD files provided by the analytical laboratory were uploaded to the electronic analytical database by the Database Manager. Data received from the laboratory in electronic format were checked for completeness by comparing data received with data analyses requested in the chain-of-custody forms. Analytical data were verified to assure the accuracy of the EDD, as compared to the analytical laboratory reports. Data verification involved having a qualified person other than the Database Manager manually check a printout from the electronic database against the laboratory reports. Any deviations from the laboratory reports were reported to the Database Manager, and the subsequent changes re-checked to verify their accuracy. In addition, the sample identification number, location, constituent, and qualifier codes were also verified.

##### 2.6.3 Archiving of Electronic Data

Archiving of the electronic project database was routinely accomplished. Data were backed up on a no-less-than weekly basis. The permanent archive for the analytical and geological/hydrological data is both electronic and hard copy files maintained by LEA.

##### 2.6.4 Data Verification

The field personnel performed an initial review of data obtained from field measurements. This review consisted of checking procedures utilized in the field, ensuring that field measurement instruments were properly calibrated, verifying the accuracy of transcriptions, and comparing data obtained in the field to historic measurements. Field records were subsequently reviewed following completion of each day's field activities for completeness and consistency.



## **APPENDIX C**

### **QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES AND EVALUATION**

An internal review of analytical data was the responsibility of laboratory personnel. The analyst initiated the data review process by examining and accepting the data. The data reviewer then reviewed the completed data package. The data reviewer provided a technical review for accuracy and precision according to the methods employed and laboratory protocols. The data package was also reviewed for completeness (i.e., all pertinent information is included, all appropriate forms are signed and dated, calculations are correct, and holding times and quality control sample acceptance criteria have been met). A final review of the data was provided by the Project Manager to ensure that the data package met the project specifications.

#### **2.7 Data Presentation**

The objective of data presentation was to illustrate the analytical data for the Project Area in formats that facilitated data interpretation and visualization. These formats include tables, figures, and drawings, as appropriate.

##### **2.7.1 Analytical Data Presentation**

Use of the electronic database for storage and retrieval of a wide range of both sample collection and analytical information maximized the ease and accuracy of data review and presentation. Tables of analytical and sampling information were produced in multiple formats to assist in the data evaluation process. Examples of analytical data presentations incorporated in this report include: tabular listings of analyses conducted, sorted by location and sample identification number, and summaries of exceedances of tabulated numeric criteria in the CTDEP's Remediation Standard Regulations (RSRs).

##### **2.7.2 Facility Drawings**

Facility drawings were created using AutoCAD® software. Base maps were generated using available information provided by Pratt & Whitney.

#### **2.8 File Organization**

Files of original analytical data obtained during the groundwater monitoring events were maintained throughout data evaluation process and ultimately archived in a central file. Incoming data were logged into the project file both on the project analytical database and on



## **APPENDIX C**

### **QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES AND EVALUATION**

hardcopy and then were appropriately placed in the file. Analytical results from the laboratories were keyed electronically to the sample identification numbers assigned during sample collection. Original field documentation forms, paper copies of laboratory reports, and other project files information were transferred from the project file to a designated archive location upon the completion of the project. Computerized data were stored in both hard copy and electronic back-up formats.



## APPENDIX C

### QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES AND EVALUATION

#### 3. QUALITY ASSURANCE/QUALITY CONTROL SAMPLES

QA/QC samples collected during the 2009 Post-Remediation Groundwater Monitoring Program included: duplicate groundwater samples; equipment blank samples; trip blank samples; and PE samples. The duplicate samples, equipment blanks, and PE samples were analyzed for the same suite of constituents as the field samples, and trip blanks were analyzed for volatile organic compounds (VOCs) only.

##### 3.1 Field Duplicate Samples

Field duplicate samples were collected to provide a measure of the reproducibility of field sampling and laboratory analytical methodologies. Duplicate samples were coded in a fashion that did not alert the laboratory to the fact that the samples are replicates. Consistency between analytical results for field duplicate samples indicates consistent field sampling, sample handling, and analytical laboratory procedures. The consistency between field duplicate pairs is often measured by calculating the relative percent difference (RPD) for detects in a field duplicate pair when a compound was reported at greater than two times the sample quantitation limit in both samples. Field duplicate precision were met when the RPD was less than or equal to 30 % for aqueous samples (which is based upon the United States Environmental Protection Agency (EPA) Region I Tier II Validation Guidance). If the RPD exceeded the acceptable limit, the affected compound(s) results were considered to be estimated values (no directional bias) and data usability was evaluated based on the project objectives. The RPD is calculated using the following formula:

$$RPD = \frac{|X_1 - X_2|}{(X_1 + X_2)/2} \times 100\%$$

where  $X_1$  and  $X_2$  represent the two reported concentration measurements.

One duplicate groundwater sample was collected during each quarterly monitoring event and was submitted for analysis for VOCs, extractable total petroleum hydrocarbons (ETPH), polychlorinated biphenyls (PCBs), Resource Conservation and Recovery Act (RCRA) 8 metals, copper, nickel and zinc. Field duplicates were submitted at a frequency of one per fifteen samples, which met the QA/QC frequency objective of one field duplicate per twenty samples.





## APPENDIX C

### QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES AND EVALUATION

A summary of field duplicate data for groundwater samples is presented in Table C-1, and a summary of constituents detected in duplicate groundwater samples is presented in Table C-2.

#### 3.1.1 Volatile Organic Compounds

There were 31 instances in which compounds were reported at concentrations greater than two times the reporting limit. The RPDs for these sample pairs ranged from 0% to 50%. Five of the compounds exceeded the RPD of 30%, thus indicating that 84% of the RPDs met the acceptance criterion.

Results that did not meet the criterion for field duplicate precision were considered to be estimated concentrations. Usability of estimated data was determined by comparing the higher of the two estimated concentrations in each duplicate pair with the corresponding RSR criteria.

#### 3.1.2 Extractable Total Petroleum Hydrocarbons

There were four instances in which compounds were reported at concentrations greater than two times the reporting limit. The RPDs for these sample pairs ranged from 1.4% to 24.7%, thus indicating that 100% of the RPDs met the acceptance criterion.

#### 3.1.3 Polychlorinated Biphenyls

PCBs were not detected in any groundwater sample collected. Therefore, a RPD assessment could not be performed.

#### 3.1.4 Metals

There were three instances in which metals were reported at concentrations greater than two times the reporting limit. The RPDs ranged from 3.4% to 13.8%. Therefore, 100% of these results were within the acceptance criteria.

#### 3.2 Equipment Blank Samples

Equipment blank samples are used to indicate if any cross-contamination of samples between uses of sampling equipment or contamination to samples from disposable equipment may have occurred. Field equipment blank samples are collected by pouring laboratory-provided water



## APPENDIX C

### QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES AND EVALUATION

(analyte-free, de-ionized) through and/or over decontaminated or disposable sampling equipment into appropriate containers. The criteria for evaluating equipment blanks were such that no target compound should be present at or above the sample quantitation limit in any given equipment blank.

One equipment blank sample was collected during each quarterly monitoring event and submitted to the laboratory for analysis for VOCs, ETPH, PCBs, and metals. Acetone was reported at a concentration of 7.6 micrograms per liter ( $\mu\text{g/l}$ ) in the equipment blank sample analyzed on September 11, 2009. Acetone, however, was not reported above laboratory detection limits in any of the samples that were collected on September 11, 2009. No additional constituents were detected in any of the equipment blank samples collected in 2009. A summary of all equipment blank samples analyzed is provided as Table C-3.

#### 3.3 Trip Blank Samples

Trip blank samples are used to indicate if any cross-contamination between samples or contamination from other sources of VOCs may have occurred during transport, storage, or laboratory analysis of samples. Trip blank samples were prepared by Accutest Laboratories (Accutest) using ultra-pure, de-ionized water and submitted to the sampling team whenever glassware was delivered. A trip blank sample accompanied all project VOC sample containers through all custody changes in possession, coolers and refrigerators. The trip blank samples were never opened by the sampling team.

A total of nine trip blank samples, one for each day that sampling was conducted, were submitted to Accutest for analysis. No constituents were reported above laboratory detection limits in any of the trip blank samples that were analyzed during the 2009 sampling events. A summary of all trip blank samples is provided as Table C-4.

#### 3.4 Performance Evaluation Samples

Double blind aqueous PE samples were submitted to Accutest during the September 2009 monitoring event. The PE sample data were used to assess the overall accuracy and bias of the analytical methods being used and provide an indication of overall laboratory performance. Data for the PE samples also provided information about the magnitude and direction of quantitative



## APPENDIX C

### QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES AND EVALUATION

bias for the laboratory methods, including sample preparation (extraction and cleanup) and analysis (chromatography and calibration).

The PE samples for this project were prepared by Environmental Resource Associates (ERA) of Arvada, Colorado. All results for PE samples were compared with vendor-certified acceptance limits. The PE samples results were evaluated for pass and fail. Fails were categorized as bias high, bias low, false negatives and false positives. Performance evaluation sample certified values and results of the performance sample evaluation are included as Attachment C-2. The following is a summary of the performance evaluation samples results by analytical class.

- **Volatile Organic Compounds:** An evaluation of the results obtained against vendor-specified acceptance standards indicated that each of the VOC constituents (tetrachloroethylene, trichloroethylene, vinyl chloride, cis-1,2-dichloroethylene and trans-1,2-dichloroethylene) failed because they were reported at concentrations that were above the acceptable vendor-certified limits. LEA performed a root cause analysis to determine why these PE samples did not meet the acceptance criteria. Both Accutest and ERA checked their data and confirmed the results reported to be valid. LEA decided to include a PE sample that was prepared for VOCs as part of the December 2009 quarterly monitoring event to re-test Accutest's accuracy. The VOC concentrations reported by Accutest in the sample that was analyzed as part of the December 2009 sampling event were within the acceptance limits.
- **Polychlorinated Biphenyls:** PCBs were reported by the laboratory within the vendor-certified limits.
- **Total Petroleum Hydrocarbons:** ETPH were reported by the laboratory at a concentration that failed because the value was slightly below the lower vendor-certified limit. A second performance sample was not prepared for ETPH after LEA's root cause analysis concluded that the initial failed ETPH value could be attributed to the variability within the Connecticut ETPH method rather than a reflection of Accutest's accuracy.
- **Metals:** All metals were reported by the laboratory within the vendor-certified acceptable limits



## APPENDIX C

### QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES AND EVALUATION

#### 4. ASSESSMENT OF LABORATORY QA/QC INFORMATION

All data were analyzed using the Connecticut Reasonable Confidence Protocols (RCPs), which are analytical methods based on the respective EPA methods. The RCPs provide specific requirements for QA/QC that the laboratory must follow during analysis of environmental samples. In addition, the RCP methods require the laboratory to report the QA/QC analytical data associated with the analysis of each sample in the laboratory report and further require that the laboratory provide a narrative of any non-conformances for QA/QC data that were outside the acceptable limits for such data, as described in the specific RCP method.

QA/QC information provided by laboratories was evaluated with respect to quality by conducting a DQA and DUE in accordance with the methodology described in the November 2007 guidance document entitled *Reasonable Confidence Protocols* and in more detail in the May 2009 document entitled *Laboratory Quality Assurance Quality Control, Data Quality Assessment, Data Usability Evaluation Guidance Document*. The DQA process is intended to assess the quality of the analytical data generated by the laboratories. The DUE is performed to determine, once the quality of the analytical is known, whether the quality of that data will affect its usability for the intended purpose.

##### 4.1 Data Quality Assessment and Usability

The DQA was performed to assess the quality of the analytical data in each laboratory analytical report package. The DQA resulted in identifying data for which the quality could affect its potential use in decision-making. The DUE, which took into account the objectives for the data collection effort, and the intended use of the data, was performed using the information developed during the DQA. The RCP Data Quality Assessment Summary Reports that were generated during that assessment process are included as Attachment C-3.

Each analytical data package was reviewed in accordance with the DQA review process. Several deficiencies were noted. These included:

- Reporting of elevated detection limits for VOCs in one groundwater sample;
- Results for Laboratory Control Sample (LCS) for VOCs outside the accepted range of variability;



## APPENDIX C

### QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES AND EVALUATION

- Recoveries for Matrix Spike/Matrix Spike Duplicate (MS/MSD) for VOCs outside the accepted range of variability; and
- Recoveries for initial calibration curve and continuing calibration curve outside the accepted range of variability for specific VOC constituents.

After the laboratory analytical data were evaluated during the DQA, a DUE was performed. The DUE took into account the following:

- the site-specific conceptual site model (CSM);
- knowledge of the contaminant types, concentrations, and distribution;
- objectives for the data collection effort and the intended use of the data (i.e. the data quality objectives (DQOs)); and
- results from field QA/QC sampling.

In general, the QA/QC deficiencies identified related to constituents that are not identified as constituents of concern for the Project Area. Taking into consideration multiple lines of evidence, results from the DUE indicated that the data generated during the 2009 quarterly groundwater sampling events were usable for the intended purpose. Deficiencies that were deemed to have the potential to affect the interpretation of the data, and which, therefore required more detailed evaluation, included the following issues.

A 10 times dilution was applied to the groundwater sample collected from monitoring well WT-MW-50 during the September 2009 sampling event, thus causing the reporting limits to exceed one or more applicable RSR criteria for VOCs. However, a duplicate groundwater sample that was collected from this monitoring well was not diluted. Therefore, the data reported from the duplicate sample was used to evaluate the groundwater concentrations with respect to the RSRs.

A low percent recovery of 67% was reported for chloroethane in the LCS run on December 8, 2009, indicating a low bias. Chloroethane was reported above detection limits in one sample (collected from monitoring well WT-MW-50) that was associated with the LCS, at a concentration of 4.3 µg/l. The chloroethane concentration reported in the duplicate sample collected from this monitoring well, which was not associated with the low LCS recovery, was reported at a concentration of 5.8 µg/l. The duplicate sample that contained the higher



## APPENDIX C

### QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES AND EVALUATION

concentration of chloroethane was evaluated for decision making purposes as a conservative measure.

The sample collected from monitoring well WT-MW-50 was also selected by the laboratory for MS/MSD analysis. Although percent recoveries were reported below the acceptable QA/QC limits for multiple VOC constituents, only two of these VOCs (chloroethane and tetrahydrofuran) were identified in the unspiked sample at concentrations above the reporting limit. Chloroethane was reported with low percent recoveries of 69% and 67% in the MS and MSD, respectively. Tetrahydrofuran, which was identified in the sample at a concentration of 18.4 µg/l, was also reported with a low percent recovery of 66% in the MS and MSD. Based on the facts that the MS/MSD percent recoveries were just below the acceptable lower QA/QC limit of 70%, these constituents are not primary constituents of concern, and the concentrations of chloroethane and tetrahydrofuran are well below the applicable RSR criteria, this data non-conformance was not identified as significant and did not affect decision making.

The rationale discussed in the foregoing statements, coupled with the number and type of QA/QC issues identified during the DQA, provide support for a conclusion that analytical results for the samples collected during the four 2009 monitoring events were considered usable for decision-making purposes.



## TABLES





# Pratt & Whitney, East Hartford, Connecticut: Willow Brook & Willow Brook Pond 2009 Annual Groundwater Monitoring Report

Loureiro Engineering Associates, Inc.

[illegible]

Legend: x - mass, t - TCLP, s - SPLP, e - EPTOX, z - ZHE, d - Thermal Desorption, r - Charcoal Tube, a - SEM/AVS, m - Methanol, nr - not received; Capitalized - at least one analyte in class detected

Page 1 of 1

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Table C-2

## SUMMARY OF CONSTITUENTS DETECTED IN DUPLICATE SAMPLES


**Pratt & Whitney, East Hartford, Connecticut: Willow Brook & Willow Brook Pond 2009 Annual  
Groundwater Monitoring Report**

Loureiro Engineering Associates, Inc.

	Location ID	WT-MW-50	WT-MW-50	WT-MW-50	WT-MW-50	WT-MW-50	WT-MW-50	WT-MW-50
	Sample ID	1117655	1117655	1117661	1117661	1123438	1123438	1123439
	Sample Date	03/11/2009	03/11/2009	03/11/2009	03/11/2009	06/05/2009	06/05/2009	06/05/2009
	Sample Time	10:05	10:05	10:05	10:05	10:25	10:25	10:25
	Sample Depth	16.00' - 26.0	16.00' - 26.0	16.00' - 26.0	16.00' - 26.0	16.00' - 26.0	16.00' - 26.0	16.00' - 26.0
	Laboratory	ACTM	ACTM	ACTM	ACTM	ACTM	ACTM	ACTM
	Lab. Number	M81204-1	M81204-2	M81204-7	M81204-8	M83394-16	M83394-17	M83394-18
Constituent	Units							
Date Metals Analyzed	-		03/13/2009		03/13/2009		06/11/2009	
Date Organics Analyzed	-	03/18/2009		03/18/2009		06/12/2009		06/12/2009
Date Physical Analyzed	-	03/17/2009		03/17/2009		06/18/2009		06/18/2009
Arsenic (unfiltered)	mg/L		0.0095		0.0076		0.0114	
Barium (unfiltered)	mg/L		0.289		0.291		0.304	
Nickel (unfiltered)	mg/L		0.0481		0.0485		0.0484	
Zinc (unfiltered)	mg/L		0.0270		0.0250			
Total Petroleum Hydrocarbons (CT ETPH)	mg/L	0.198		0.175		0.290		0.286
Benzene	ug/L					0.56		0.50
1,1,1-Trichloroethane	ug/L	2.4		2.5		4.3		4.4
1,1-Dichloroethane	ug/L	3.6		3.7		5.0		5.4
1,2-Dichloroethane	ug/L	2.0						
Chloroethane	ug/L							
1,1-Dichloroethylene	ug/L	35.1		36.3		49.0		51.8
trans-1,2-Dichloroethylene	ug/L	1.0		1.1				
cis-1,2-Dichloroethylene	ug/L	39.7		40.0		59.7		63.2
Vinyl Chloride	ug/L	14.7		15.3		18.4		19.1
Tetrachloroethylene	ug/L	33.2		32.6		37.3		40.9
Trichloroethylene	ug/L	305		306		296		322
Tetrahydrofuran	ug/L	16.5		16.9		24.1		24.3
Chloroform	ug/L					1.4		1.4
Toluene	ug/L	2.5		2.4				
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Table C-2

## SUMMARY OF CONSTITUENTS DETECTED IN DUPLICATE SAMPLES


**Pratt & Whitney, East Hartford, Connecticut: Willow Brook & Willow Brook Pond 2009 Annual  
Groundwater Monitoring Report**

Loureiro Engineering Associates, Inc.

	Location ID	WT-MW-50	WT-MW-50	WT-MW-50	WT-MW-50	WT-MW-50	WT-MW-50	WT-MW-50
	Sample ID	1123439	1130895	1130895	1130896	1130896	1136013	1136013
	Sample Date	06/05/2009	09/11/2009	09/11/2009	09/11/2009	09/11/2009	12/08/2009	12/08/2009
	Sample Time	10:25	10:29	10:29	10:29	10:29	12:55	12:55
	Sample Depth	16.00' - 26.0	16.00' - 26.0	16.00' - 26.0	16.00' - 26.0	16.00' - 26.0	16.00' - 26.0	16.00' - 26.0
	Laboratory	ACTM	ACTM	ACTM	ACTM	ACTM	ACTM	ACTM
	Lab. Number	M83394-19	M85761-16	M85761-7	M85761-17	M85761-18	M87915-1	M87915-2
Constituent	Units							
Date Metals Analyzed	-	06/11/2009	09/16/2009			09/16/2009		12/14/2009
Date Organics Analyzed	-			09/18/2009	09/19/2009		12/15/2009	
Date Physical Analyzed	-			09/23/2009	09/23/2009		12/19/2009	
Arsenic (unfiltered)	mg/L	0.0105	0.0101			0.0116		0.0066
Barium (unfiltered)	mg/L	0.3	0.309			0.343		0.351
Nickel (unfiltered)	mg/L	0.0468	0.0540			0.0548		0.0894
Zinc (unfiltered)	mg/L							
Total Petroleum Hydrocarbons (CT ETPH)	mg/L			0.202	0.219		0.268	
Benzene	ug/L			0.54			0.56	
1,1,1-Trichloroethane	ug/L			7.2	12.0		3.2	
1,1-Dichloroethane	ug/L			7.3			3.5	
1,2-Dichloroethane	ug/L			2.1			1.2	
Chloroethane	ug/L						4.3	
1,1-Dichloroethylene	ug/L			32.2	35.5		10	
trans-1,2-Dichloroethylene	ug/L			1.9				
cis-1,2-Dichloroethylene	ug/L			38.4	48.7		10.7	
Vinyl Chloride	ug/L			19.8	17.2		3.1	
Tetrachloroethylene	ug/L			22.3	19.6		7.6	
Trichloroethylene	ug/L			162	194		63.3	
Tetrahydrofuran	ug/L			58.9			18.4	
Chloroform	ug/L							
Toluene	ug/L							
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Table C-2

## SUMMARY OF CONSTITUENTS DETECTED IN DUPLICATE SAMPLES


**Pratt & Whitney, East Hartford, Connecticut: Willow Brook & Willow Brook Pond 2009 Annual  
Groundwater Monitoring Report**

Loureiro Engineering Associates, Inc.

	Location ID	WT-MW-50	WT-MW-50					
	Sample ID	1136028	1136028					
	Sample Date	12/08/2009	12/08/2009					
	Sample Time	12:55	12:55					
	Sample Depth	16.00' - 26.0	16.00' - 26.0					
	Laboratory	ACTM	ACTM					
	Lab. Number	M87915-3	M87915-4					
Constituent	Units							
Date Metals Analyzed	-		12/14/2009					
Date Organics Analyzed	-	12/21/2009						
Date Physical Analyzed	-	12/19/2009						
Arsenic (unfiltered)	mg/L		0.0074					
Barium (unfiltered)	mg/L		0.349					
Nickel (unfiltered)	mg/L		0.0864					
Zinc (unfiltered)	mg/L							
Total Petroleum Hydrocarbons (CT ETPH)	mg/L	0.209						
Benzene	ug/L	0.65						
1,1,1-Trichloroethane	ug/L	5.0						
1,1-Dichloroethane	ug/L	5.8						
1,2-Dichloroethane	ug/L	1.4						
Chloroethane	ug/L	5.8						
1,1-Dichloroethylene	ug/L	13.4						
trans-1,2-Dichloroethylene	ug/L							
cis-1,2-Dichloroethylene	ug/L	17.6						
Vinyl Chloride	ug/L	4.3						
Tetrachloroethylene	ug/L	6.4						
Trichloroethylene	ug/L	80.3						
Tetrahydrofuran	ug/L	23.3						
Chloroform	ug/L							
Toluene	ug/L							
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Legend: x - mass, t - TCLP, s - SPLP, e - EPTOX, z - ZHE, d - Thermal Desorption, r - Charcoal Tube, a - SEM/AVS, m - Methanol, nr - not received; Capitalized - at least one analyte in class detected  
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[illegible]

Legend: x - mass, t - TCLP, s - SPLP, e - EPTOX, z - ZHE, d - Thermal Desorption, r - Charcoal Tube, a - SEM/AVS, m - Methanol, nr - not received; Capitalized - at least one analyte in class detected

Page 1 of 1

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## **ATTACHMENT C-1**

### **LEA Standard Operating Procedures**



**Loureiro Engineering Associates, Inc.  
Standard Operating Procedure  
for  
Liquid Sample Collection and Field Analysis**

**SOP ID: 10004  
Date Initiated: 02/20/90  
Revision No. 006: 12/31/01**

<b>Approved By: <u>/s/ Joseph T. Trzaski</u></b>	<b><u>12/31/01</u></b>
<b>Joseph T. Trzaski</b>	<b>Date</b>
<b>Senior Scientist</b>	
 <b><u>/s/ Nick D. Skoularikis</u></b>	 <b><u>12/31/01</u></b>
<b>Nick D. Skoularikis</b>	<b>Date</b>
<b>Director of Quality</b>	

## REVISION RECORD

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<u>Rev #</u>	<u>Date</u>	<u>Additions/Deletions/Modifications</u>
Initial Issue	2/20/90	
001-004	NR	No record.
005	01/15/99	No record.
006	12/31/01	Updated to conform to new SOP format. Minor revisions throughout.





**Loureiro Engineering Associates, Inc.**  
**Standard Operating Procedure**  
**for**  
**Liquid Sample Collection and Field Analysis**

**1. Purpose and Scope**

This document describes procedures to be followed for measurement of static water level elevations, detection of immiscible layers, well evacuation, sample withdrawal, and field analyses.

**2. Definitions**

2.1. Immiscible layers: The term is used to denote free-phase liquids that may be present in the aquifer as a result of a release. These liquids may have a density lighter than water (light non-aqueous phase liquids (LNAPL) or floaters) or heavier than water (dense non-aqueous phase liquids (DNAPL) or sinkers).

**3. Equipment**

3.1. Equipment required for the collection and field analysis of liquid samples includes:

- Water-level indicator (accurate to 0.01 foot). The size of the instrument depends on the size of the wells being monitored.
- Distilled water.
- Hand towels.
- Portable volatile organic compound (VOC) analyzer (Photovac MicroTIP<sup>®</sup>, Foxboro OVA<sup>®</sup> or equivalent).
- Interface probe, clear polyvinyl chloride (PVC) or fluorocarbon resin bailer (if required).
- pH and temperature meter (capable of accuracy to 0.1 pH unit).
- Specific conductivity meter.
- Bailers (clean or disposable) with disposable nylon or polyethylene rope.



- Polyethylene plastic sheeting.
- Polyethylene tubing, and appropriate pumping apparatus such as centrifugal pump, Wattera<sup>®</sup> pump with fluorocarbon resin foot valve, peristaltic pump with appropriate tubing, submersible pump or other appropriate pumping apparatus.
- Clean disposable gloves.
- Field paperwork.
- Sample collection jars.
- Indelible marker.
- Cooler(s) with ice or ice packs.
- Site-specific Health and Safety Plan (as applicable).
- Site-specific work plan, work instructions, drawings (as applicable).
- Personal protective equipment (as may be required by Site Specific Health and Safety Plan).
- Aluminum foil (if field decontamination is expected).
- Appropriate containers for collection of purge water (bucket, carboy, 55-gallon drum etc.).

#### **4. Procedures**

Immediately upon opening the well, the air in the wellhead should be sampled for VOCs using a portable VOC analyzer, such as a Photovac MicroTIP<sup>®</sup>. The well cap shall be opened slightly and the sampling port of the VOC analyzer shall be inserted into the well. The maximum reading shall be recorded on the appropriate field paperwork. The instrument shall be zeroed with ambient air prior to the measurement, and the initial and final readings shall be recorded for each well.

Measures shall be taken during well sampling to prevent surface soils from coming in contact with the purging equipment and lines. Typically, a polyethylene sheet is placed on the ground providing adequate coverage for the equipment being used.

##### **4.1. Detection of Immiscible Layers**

- 4.1.1. If the presence of immiscible layers is suspected or unknown, the sampling event shall include provisions for detection of immiscible phases prior to well evacuation or sample collection. Lighter and/or



denser immiscible phases may be encountered in a groundwater monitoring well.

- 4.1.2. An interface probe will be used to determine the existence of any immiscible layers, light or dense. Alternatively, a clear fluorocarbon resin or PVC bailer may be used to determine the existence of the phases or oil sheen in the well when no accurate determination of the immiscible layer thickness is required. For Geoprobe<sup>®</sup> wells smaller than 1" in diameter, an interface probe cannot be introduced into the well. A small diameter disposable bailer can be used to determine the existence of any immiscible layers. Alternatively the initial water purged from a well will be collected and evaluated visually for the presence of immiscible layers.
- 4.1.3. If immiscible layers were encountered, the levels of the immiscible liquids shall be measured to an accuracy of 0.02 feet using an electronic interface probe capable of detecting the interfaces between air, product, and water. The interface levels shall be recorded in the field notebook. Adjustments of the observed head to the theoretical hydraulic head shall be calculated based on the density conversion factor associated with the particular non-aqueous phase liquid.
- 4.1.4. If required, the immiscible layers and groundwater shall then be purged into 55-gallon 17H DOT drum, which shall be labeled and characterized for disposal. The immiscible layer shall be collected prior to any purging activities.

#### 4.2. Measurement of Static Water Level

- 4.2.1. The static water elevations in each well shall be measured prior to each sampling event. This is performed initially to characterize the site, and in subsequent sampling rounds to determine whether horizontal or vertical flow gradients have changed. A change in hydrologic conditions may necessitate modification of the groundwater monitoring program.
- 4.2.2. Remove the protective cover and locking cap.
- 4.2.3. Each well shall have a surveyed reference point located at the top of the well casing with the locking cap removed. The reference point shall be easily recognizable, since the personnel conducting the sampling may differ from one sampling event to the next. If no distinguishable reference point is present, the measurements shall be



taken from the highest point on the well casing. The absence of a reference point and subsequent reference point used for the measurements shall be recorded on the field paperwork.

4.2.4. The following parameters shall be measured with an accuracy of 0.01 ft:

- Depth to standing water.
- Depth to bottom of well.

4.2.5. A water-level indicator will be used for measurement. Due to possible pressure differences between the well atmosphere and the ambient atmosphere, the water level will be allowed to equilibrate for 15 minutes following removal of the well cap. The results shall be recorded in the appropriate location(s) on the appropriate field forms.

4.2.6. Total depth measurements will be compared to original depths to determine the degree of siltation that may have occurred. This information shall be noted on the field form. Should significant siltation occur in any well, the well may need to be redeveloped by an approved method. This information will also be used to confirm that the proper well is being sampled (in case of cluster wells).

4.2.7. The portion of the tape immersed in the well shall be decontaminated during retrieval using a distilled water rinse followed by drying with a clean wipe, prior to use in another well. This decontamination procedure shall be amended, as needed, to accommodate the specific type of contamination anticipated.

#### 4.3. Field Analysis

4.3.1. Parameters that are physically or chemically unstable shall be measured immediately after collection using a field test meter or other equipment. Parameters such as pH, temperature, specific conductivity, and turbidity will be measured in the field, at the temperature of the well sample. The measurement of additional parameters may be required dependent upon sampling methods or other site-specific conditions.

4.3.2. A combination of pH/temperature/specific conductivity meters shall be used. The meter shall be calibrated prior to use and at the end of the day using calibration solutions, in accordance with the instructions provided in the instrument's operating manual. Whenever a



questionable reading (“spike”) is observed the calibration shall be checked. The calibration shall be checked prior to sampling each well or well cluster. Calibration information to be recorded in the field paperwork shall include the temperature, pH, and conductivity readings in each calibration solution before and after each calibration.

The pH/temperature/conductivity meters shall be placed into a sample and allowed to stabilize for a minimum of twenty seconds. The accuracy of measurement shall be 0.1 standard units for pH, and 0.1E Celsius for temperature. For conductivity, the accuracy shall be as stipulated by the range of the instrument. The sample shall be discarded in an appropriate manner upon completion of the analysis.

- 4.3.3. The pH/temperature/specific conductivity meters shall be decontaminated using a distilled/deionized water rinse between each sample. To the extent possible, the same probe and meter shall be used for all measurements at a given site for the duration of monitoring at the site.
- 4.3.4. Turbidity of the sample will be measured using a DRT turbidimeter, Model 15C or equivalent, that has been calibrated in accordance with the instructions provided in the instrument’s manual. The accuracy of the measurement shall be to 1 NTU (nephelometric turbidity unit).

#### 4.4. Well Evacuation

- 4.4.1. Calculate standing water in the well based on the following schedule and record on the appropriate field form:

Well Diameter (inches)	Conversion Factor (gal/feet)
½	0.01
1	0.041
1 ¼	0.064
1 ½	0.091
2	0.163
4	0.654
6	1.47

- 4.4.2. Generally, a centrifugal, submersible, air-lift, bladder, inertial, or peristaltic pump equipped with a fluorocarbon resin or PVC foot valve on the end of dedicated tubing, as appropriate, may be used to evacuate the monitoring wells. Alternatively, evacuation of the wells may be accomplished using a bailer.



- 4.4.3. A new sheet of polyethylene plastic shall be placed on the ground adjacent to the well. Sampling and purging equipment, such as pump, tubing, bailers and bailer twine, containers, etc., shall be placed on the polyethylene sheet, never on the ground.
- 4.4.4. Don disposable gloves, prepare pump and tubing for insertion into the well, ensuring that any tubing or pump apparatus is of sufficient length to reach the appropriate depth for pumping. Pumping shall occur within the well screened interval as indicated on the well construction diagram. If the well construction information is not available, the bottom of the tubing or pump shall be placed 1' - 2' above the bottom of the well.
- 4.4.5. Lower the pump and/or tubing gently into the water column to the appropriate depth and begin pumping.
- 4.4.6. Measure pH, temperature, specific conductivity, turbidity and other specific parameters in the well from the first water extracted during the purging process.
- 4.4.7. Remove a volume of water equal to 3 to 5 times the standing water from the well measured into an appropriate container. Purging of the well shall occur at a slow rate to minimize agitation of the water recharging the well.
- 4.4.8. If it is not possible to remove three volumes as described above, due to slow recovery of the well, the well shall be emptied and allowed to recover. In slow-yielding wells, whenever full recovery exceeds two hours, the sample shall be extracted as soon as a sufficient volume is available for a sample for each parameter.
- 4.4.9. Measure pH, temperature, specific conductivity, turbidity and other specific parameters **prior** to sampling.
- 4.4.10. Well evacuation is deemed to be complete when the following criteria have been met:
- pH measurements vary no more than  $\pm 0.5$  standard units.
  - Specific conductivity measurements vary no more than  $\pm 10\%$ .
  - Temperature measurements vary no more than  $\pm 1$ EC.
  - Turbidity measurements (if used) are below 5 NTU, if practicable.



Alternatively well purging shall be deemed complete if a maximum of five well volumes have been removed from the well and/or other site-specific or method-specific parameters have stabilized.

- 4.4.11. Measure pH, temperature, specific conductivity and turbidity (and other specific parameters) again **after** sampling to determine the effectiveness of purging and sample stability.
- 4.4.12. Do **not** re-use purging equipment (bailers, rope, tubing, sampling vials, etc.). Any non-disposable bailers shall be returned to the office for decontamination. Pumps shall be decontaminated between monitoring wells, in accordance with procedures noted in Section 4.7.
- 4.4.13. Bailer twine and other consumables, such as filter apparatus, shall be disposed of appropriately.
- 4.4.14. Record sampler's name, sampling time, volume of water purged, parameters measured, weather conditions, sample number, analyses required and all other pertinent information on appropriate field forms, and complete the chain of custody form. The field paperwork shall also provide an indication of other field conditions that could potentially impact water levels (such as a pond being drained, or presence of a beaver dam in nearby surface water).
- 4.4.15. As dictated by project-specific requirements and/or groundwater quality considerations, any water purged from the monitoring wells shall be stored in properly labeled containers for disposal.
- 4.4.16. Storage shall be in properly labeled containers approved for storage of hazardous materials, and in an appropriate designated location at the site.

#### 4.5. Sample Withdrawal

- 4.5.1. In order to ensure that the groundwater sample is representative of the formation, it is important to minimize physical alteration (i.e. agitation during purging and/or sample collection) or chemical contamination of the sample during the withdrawal process. The sample set shall include enough dedicated bailers and sample jars to obtain samples from each well, and additional quality assurance/quality control (QA/QC) samples such as duplicates, trip blanks and equipment blanks. In addition, it is recommended to increase the supply of



sampling equipment and sample jars by about 10% to account for missing or broken glassware.

4.5.2. Use either an appropriate pump or bailer to purge each well (the same pump used for purging may be used for sample withdrawal, with the exception that samples intended for VOC analysis must be collected using either a bailer or a bladder pump.). Do not reuse a bailer in the field; used non-disposable bailers shall be returned to the office for decontamination.

4.5.3. To minimize agitation of the water column, samples shall be collected from the pump tubing in the following order into pre-labeled sample containers:

- Extractable organics (semi-volatile).
- Total petroleum hydrocarbons (TPH).
- Poly chlorinated biphenyls (PCBs).
- Metals.
- Phenols.
- Cyanide.
- Chloride and sulfate.
- Nitrate and ammonia.
- Turbidity.
- Radionuclides.

Samples to be analyzed for the following constituents shall be collected using a bailer, after any pump and tubing have been removed from the well. Removal of any down hole equipment shall be done carefully and in a manner that minimizes disturbance of the water column.

- Volatile organic compounds (VOCs).
- Purgeable organic carbon (POCs).
- Purgeable organic halogens (POX).
- Total organic halogens (TOX).
- Total organic carbon (TOC).





- 4.5.4. Samples shall be obtained from the monitoring wells as soon as possible after purging. This may require waiting an extended period for low-yielding wells.
  - 4.5.5. Samples collected for VOC analysis shall be free of any air bubbles and inverted upon filling. Bacterial samples shall be collected using dedicated gloves; taking care not to allow anything to touch the inside of the sampling container.
  - 4.5.6. Samples collected for dissolved metals analysis, which are to be filtered in the field, shall be passed through a 0.45 micron (maximum) filter (either in-line or under negative pressure) prior to placement in the sample bottle.
  - 4.5.7. In situations where replicate samples shall be required, care shall be taken to ensure that each sample collected is independent.
  - 4.5.8. In some situations, inorganic parameters may be sampled directly from a pump after completion of well evacuation procedures.
- 4.6. Post Sampling Procedures
- 4.6.1. As required, upon completion of all sampling procedures for a particular site, secure the lid of the cooler using packaging tape with the chain of custody inside.
  - 4.6.2. If the laboratory is local, transport the samples directly to the laboratory and present them to the sample manager. The representative of LEA should witness the verification of the chain of custody and obtain a carbon copy for filing in the project notebook.
  - 4.6.3. If the laboratory is distant, arrange for transport with a reputable carrier service. Typically, the laboratory specifies the carrier to be used and provides the shipping papers. The cooler and samples shall be secured for transport, and all mailing documentation secured onto the top of the cooler. Unless otherwise specified, delivery shall be overnight. Friday shipments should be mailed for Saturday delivery, once confirmed that the laboratory can accept them on Saturday. The laboratory shall provide confirmation of acceptance noting the temperature of the temperature blank and any deviations from the chain of custody.



#### 4.7. Field Documentation

4.7.1. Field documentation shall include at a minimum: a chain-of-custody form, Field Data Record Groundwater Form, Sample Collection Form, Daily Field Report, Field Quality Review Checklist. Sample labels shall be used for proper sample identification.

4.7.1.1. The labels shall be sufficiently durable to withstand immersion for 48 hours without detaching and to withstand normal handling. The information provided shall be legible at all times.

4.7.1.2. The following information shall be provided on the sample label using an indelible-ink pen:

- Sample identification number.
- LEA Commission Number.
- Date and time of collection.
- Place of collection.
- Parameter(s) requested (if space permits).

4.7.1.3. A field logbook and/or appropriate field forms will be used to log all pertinent information with an indelible-ink pen. The following information shall be provided:

- Project and site identification.
- LEA commission number.
- Identification of well.
- Static water level measurement technique.
- Presence of immiscible layers and detection method.
- Time well purged.
- Collection method for immiscible layers and sample identification numbers.
- Well evacuation procedure/equipment.
- Sample withdrawal procedure/equipment.
- Date and time of collection.



- Types of sample containers used and sample identification numbers.
- Preservative(s) used.
- Parameters requested for analysis.
- Field analysis method(s).
- Whether or not field filtration was performed and the filter size, if appropriate.
- Field observations on day of sampling event.
- Record of site activities.
- Field personnel.
- Climatic conditions, including air temperature.
- Status of total production.
- Record of non-productive time.
- Name of all visitors to the site related to the project.

4.7.1.4. The chain-of-custody record shall include the following information:

- Company's name and location.
- Date and time of collection.
- Sample number.
- Container type, number, size.
- Preservative used.
- Signature of collector.
- Signatures of persons involved in the chain of possession.
- Analyses to be performed.
- Type and number of samples.

A separate entry shall be made for each sample, and within each sample each case that a different preservative is used.



4.7.1.5. The Field Data Record Groundwater Form shall be updated during the sampling of each well and include the following information:

- Identification of well.
- Well depth, diameter, depth to water.
- Static water level depth and measurement technique.
- Purge volume and pumping rate.
- Time well purged.
- LEA commission number.
- Date.

#### 4.8. Equipment Decontamination

All materials and equipment, which enter a well, must be clean and free of any potential contaminants. In general, the equipment and materials entering the well shall be unused and preferably disposable. Any items not considered disposable should be decontaminated prior to commencing field activities. If field decontamination is required, the choice of decontamination procedures shall be based upon knowledge of the site-specific contaminants and as outlined in the site-specific work plan.

For sites at which the contaminants are unknown, but contamination is suspected, the decontamination procedures outlined below shall be followed.

- 4.8.1. Prior to commencing any field activities, the following solutions (as appropriate for the appropriate contaminants) shall be prepared and placed into 500-ml laboratory squirt bottles: 10% methanol in water; 10% nitric acid in water; 100% n-hexane; distilled, de-ionized water.
- 4.8.2. In the field, prepare approximately 2.5 gallons of a solution of Alconox<sup>®</sup> (or other suitable non-phosphate laboratory grade detergent) in tap water in a 5-gallon bucket.
- 4.8.3. Prepare a piece of 5-mil polyethylene sheeting to underlie the decontamination area. The sheeting shall be of sufficient size to contain any accidental discharge of decontamination solutions. The plastic shall be bermed to contain spills.
- 4.8.4. The order for decontaminating equipment is as follows:



- 1) Detergent scrub.
  - 2) DI water rinse.
  - 3) Hexane rinse (to be used only if separate-phase petroleum product, other than gasoline, is present).
  - 4) DI water rinse.
  - 5) 10% nitric acid rinse (to be used only when metals are suspected as potential contaminants).
  - 6) DI water rinse.
  - 7) Methanol rinse (<10% solution).
  - 8) Air dry.
- 4.8.5. Materials considered disposable such as the bailer cord, pump tubing, filters, etc. shall not be decontaminated and shall be disposed of in accordance with all applicable municipal, state, and federal regulations.
- 4.8.6. Wrap each piece of decontaminated equipment in aluminum foil, as appropriate, to maintain cleanliness.
- 4.8.7. At the end of the project day, dispose of all spent decontamination fluids and materials such as the polyethylene sheeting and personal protective equipment in accordance with all applicable municipal, state, and federal regulations.

## **5. Quality Assurance/Quality Control**

Typically samples taken for Quality Assurance/Quality Control for liquid sample collection include duplicate samples, equipment blanks and trip blanks. The necessity for these samples will be outlined in the site-specific work plan. In general, all QA/QC measures taken during liquid sample collection shall be in conformance with LEA's standard operating procedure (SOP) ID 10005. Standard QA/QC measure shall include the recording of pertinent information as follows:

- 5.1. The Field Instrument & Quality Assurance Record, which is a portion of the Daily Field Report, shall include the following information:
- Instrument make, model, and type.
  - Calibration readings.
  - Calibration/filtration lot numbers.
  - Field personnel and signature.



5.2. The Field Quality Review Checklist, which is a portion of the Daily Field Report, shall assure the completeness of the sampling round and include the following information:

- Reviewer's name and date.
- Review of all necessary site activities and field forms.
- Statement of corrective actions for deficiencies.

## 6. References

- 6.1. EPA, *RCRA Groundwater Monitoring Technical Enforcement Guidance Document*, OSWER 9950.1, September 1986.
- 6.2. EPA, *Practical Guide for Groundwater Sampling*, EPA/600/2-85/104, September 1985.
- 6.3. DEP, Site Characterization Guidance Document, Draft, June 12, 2000.

END OF DOCUMENT



**Loureiro Engineering Associates, Inc.**  
**Standard Operating Procedure**  
**for**  
**Low Flow (Low Stress)**  
**Liquid Sample Collection and Field Analysis**

**SOP ID: 10039**  
**Date Initiated: 06/11/01**  
**Revision No. 003: 04/01/05**

<b>Approved By: <u>/s/ David C. Brisson</u></b>	<b><u>04/01/05</u></b>
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<b>Project Geologist</b>	
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<b>Technical Director, Hydrogeology</b>	
 <b><u>/s/ Nick D. Skoularikis</u></b>	<b><u>04/01/05</u></b>
<b>Nick D. Skoularikis</b>	<b>Date</b>
<b>Director of Quality</b>	

## REVISION RECORD

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<u>Rev #</u>	<u>Date</u>	<u>Additions/Deletions/Modifications</u>
Initial Issue	06/11/01	
001	04/01/02	Updated to reflect new SOP format.
002	12/02/02	Updated to reflect stabilization procedures.
003	04/01/05	Incorporated modified low-flow sampling procedure to include the use of a peristaltic pump.





**Loureiro Engineering Associates, Inc.**  
**Standard Operating Procedure**  
**For**  
**Low Flow (Low Stress)**  
**Liquid Sample Collection and Field Analysis**

**1. Purpose and Scope**

This standard operating procedure (SOP) describes the procedures to be followed for measurement of static water level elevations, detection of immiscible layers, well evacuation, sample withdrawal, and field analyses utilizing low flow sampling techniques.

**2. Definitions**

2.1. Immiscible layers: The term is used to denote free-phase liquids that may be present in the aquifer as a result of a release. These liquids may have a density lighter than water (light non-aqueous phase liquids (LNAPL) or floaters) or heavier than water (dense non-aqueous phase liquids (DNAPL) or sinkers).

**3. Equipment**

3.1. Equipment required for the collection and field analysis of liquid samples shall include:

- Water-level indicator (accurate to 0.01 foot).
- Distilled water.
- Hand towels.
- Portable volatile organic compound (VOC) analyzer (Photovac MicroTIP<sup>®</sup>, Foxboro OVA<sup>®</sup> or equivalent).
- Interface probe/clear view bailer (to check for light non-aqueous phase liquids only).
- Flow-through cell capable of monitoring pH, temperature, specific-conductance, oxidation reduction potential (Eh), dissolved oxygen (DO), and turbidity.
- Polyethylene plastic sheeting.



- Adjustable rate submersible pump (preferred), adjustable rate centrifugal pump, bladder pump (constructed of stainless steel or Teflon<sup>®</sup>), or adjustable rate peristaltic pump
- Appropriate tubing for the pump used, for instance polyethylene tubing (1/4 to 3/8 inch outer diameter (O.D.)) for the peristaltic pump
- Clean disposable gloves.
- Alconox<sup>®</sup>, or other non-phosphate laboratory grade detergent.
- Three 5-gallon buckets.
- Decontamination brushes.
- Distilled, de-ionized (DI) water.
- Decontamination fluids (less than 10 percent methanol in water, 100 percent n-hexane, and 10 percent nitric acid).

#### **4. Procedure**

##### **4.1. Health & Safety Requirements**

All health and safety requirements described in the site specific Health & Safety Plan and/or Job Hazard analysis shall be observed

##### **4.2. Equipment Decontamination**

All materials and equipment that enter a well must be clean and free of any potential contaminants. Do not use any contaminated equipment or materials which are not designed to be used for groundwater monitoring, even if this means that the sampling will not be performed as planned.

In general, the choice of decontamination procedures should be based upon knowledge of the site-specific contaminants and outlined in the site-specific work plan.

For sites at which the contaminants are unknown, but contamination is suspected, the decontamination procedures outlined below should be followed.

- 4.2.1. Prior to commencing any field activities, the following solutions (as appropriate for the appropriate contaminants) should be prepared and placed into 500-ml laboratory squirt bottles: less than 10 percent



methanol in water; 10 percent nitric acid in water; 100 percent n-hexane; distilled, de-ionized water.

- 4.2.2. In the field, prepare approximately 2.5 gallons of a solution of Alconox<sup>®</sup> (or other suitable non-phosphate laboratory grade detergent) in tap water in a 5-gallon bucket.
- 4.2.3. Prepare a piece of 5-mil polyethylene sheeting to underlie the decontamination area. The sheeting should be of sufficient size to contain any accidental discharge of decontamination solutions. The plastic should be bermed to contain spills.
- 4.2.4. The order for decontaminating equipment is as follows:
  - 1) Detergent scrub.
  - 2) DI water rinse.
  - 3) Hexane rinse (to be used only if separate-phase petroleum product, other than gasoline, is present).
  - 4) DI water rinse.
  - 5) 10 percent nitric acid rinse (to be used only when metals are suspected as potential contaminants).
  - 6) DI water rinse.
  - 7) Methanol rinse (less than 10 percent solution).
  - 8) Air dry.
- 4.2.5. Materials such as the bailer cord should not be decontaminated and should just be disposed of after each test. Note: Bailers should be used **only** to check for LNAPL before sample collection using low-flow/low stress procedures. A bailer may be used to check for DNAPL **only after** all sample collection equipment has been removed from the well.
- 4.2.6. Wrap each piece of decontaminated equipment in aluminum foil, as appropriate, to maintain cleanliness.
- 4.2.7. At the end of the project day, dispose of all spent decontamination fluids and materials such as the polyethylene sheeting and personal protective equipment in accordance with all applicable municipal, state, and federal regulations.

#### 4.3. Sample Collection

- 4.3.1. Immediately upon opening the well, the air in the well head will be sampled for VOCs using a portable VOC analyzer, such as a Photovac



MicroTIP® or equivalent. The instrument shall be zeroed with ambient air prior to the measurement, and the highest reading observed shall be recorded for each well. Measurements should be taken until stabilization of the readings has occurred.

#### 4.4. Detection of Immiscible Layers

- 4.4.1. Should evidence warrant, a sampling event shall include provisions for the detection of immiscible phases prior to well evacuation or sample collection. LNAPLs are relatively insoluble liquid organic compounds with densities less than that of water (1 g/ml), while DNAPLs are organic compounds with densities greater than that of water. Lighter and/or denser immiscible phases may be encountered in a groundwater monitoring well.
- 4.4.2. An interface probe will be used to determine the existence of any immiscible layers, light or dense. Alternatively, a clear fluorocarbon resin or PVC bailer may be used to determine the existence of the phases or oil sheen in the well when no accurate determination of the immiscible layer thickness is required. As noted above, efforts to detect LNAPL only can be performed prior to sample collection. Efforts to detect DNAPL can be performed only AFTER sample collection has occurred.
- 4.4.3. Should elevations of the immiscible layers be required, levels of the fluids shall be measured to an accuracy of 0.01 feet using an electronic interface probe capable of detecting the interfaces between air, product, and water. The interface levels shall be recorded in the field form. Adjustments of the observed head to the theoretical hydraulic head shall be calculated based on the density conversion factor associated with the particular non-aqueous phase liquid.
- 4.4.4. If LNAPL is detected in a well, collection of a groundwater sample from that well is not recommended unless otherwise specified in the site-specific work plan or work instruction. However, if a groundwater sample must be collected from that well, low-flow sampling is the recommended technique, although care must be taken to minimize mobilization of the LNAPL into the zone from which the sample will be collected.

#### 4.5. Measurement of Static Water Level



- 4.5.1. The static water elevations in each well shall be measured prior to each sampling event. This is performed initially to characterize the site, and in subsequent sampling rounds to determine whether horizontal or vertical flow gradients have changed. A change in hydrologic conditions may necessitate modification of the groundwater monitoring program.
- 4.5.2. Remove the protective cover and locking cap from the well.
- 4.5.3. Each well shall have a surveyed reference point located at the top of the well casing with the locking cap removed. The reference point shall be easily recognizable, since the personnel conducting the sampling may differ from one sampling event to the next.
- 4.5.4. The following parameters shall be measured with an accuracy of 0.01 ft:
- Depth to standing water.
  - Depth to bottom of well.
- 4.5.5. A water-level indicator with a fiberglass tape will be used for measurement. As a result of possible pressure differences between the well atmosphere and the ambient atmosphere, the water level will be allowed fifteen minutes to equilibrate upon removal of the well cap. If excess pressure is encountered the water level will be allowed greater than fifteen minutes to equilibrate upon removal of the well cap. The results shall be recorded on the appropriate field form(s).
- 4.5.6. Total depth measurements will be compared to original depths to determine the degree of siltation that may have occurred. This information shall be noted on the field forms. Should significant siltation occur in any well, the well shall be redeveloped by an approved method.
- 4.5.7. The portion of the tape immersed in the well shall be decontaminated during retrieval using a distilled water rinse followed by drying with a clean wipe, prior to use in another well. This decontamination procedure shall be amended, as needed, to accommodate the specific type of contamination anticipated.
- 4.5.8. The static water level should be monitored and recorded throughout the purging and sampling of each well.



#### 4.6. Field Analysis

- 4.6.1. Parameters that are physically or chemically unstable shall be tested utilizing a flow-through cell. Such parameters as pH, temperature, specific conductance, DO, Eh, and turbidity will be measured in the field at the temperature of the well sample.
- 4.6.2. Parameters such as pH, temperature, specific conductance, DO, and Eh shall be measured using a flow-through-cell (YSI model 6820 or equivalent). The meter shall be calibrated prior to use and at the end of the day using supplied solutions in accordance with the instructions provided by the manufacturer. Calibration information will be recorded in the field before and after each calibration.
- 4.5.3 Turbidity can be measured with a separate turbidimeter, although some flow-through cells include a turbidimeter. It is useful to have a separate turbidimeter on hand to check the validity of the turbidity values obtained using the flow-through cell if there is difficulty reaching low turbidity values or if the turbidity readings recorded do not seem to be consistent with visual observation of the water samples. All samples, including turbidity samples and samples to be submitted for analysis, must be collected before the groundwater passes through the flow-through cell to prevent cross-contamination by potentially stagnant fluid within the flow-through cell. This can be accomplished by using a bypass assembly or disconnecting the tubing from the flow-cell inlet prior to sampling.

#### 4.7. Well Evacuation

- 4.7.1. Calculate standing water in the well based on the following schedule and record on the appropriate field form:

Well Diameter (inches)	Conversion Factor (gal/feet)
2	0.163
4	0.654
6	1.47

- 4.7.2. Generally, a submersible, air-lift, bladder, or peristaltic pump equipped with appropriate tubing of inert materials (such as polyethylene), shall be used to evacuate the monitoring wells.



- 4.7.3. A new piece of polyethylene plastic shall be placed on the ground adjacent to the well. Sampling and purging equipment such as the pump, tubing, containers, etc., shall be placed on the polyethylene sheet, never on the ground.
- 4.7.4. The pumps and tubing shall be prepared for insertion into the well while wearing disposable gloves. Make sure that any tubing or pump apparatus is of sufficient length to reach the appropriate depth for pumping.
- 4.7.5. Lower the pump and/or tubing gently into the water column to the midpoint of the saturated portion of the screened interval, unless otherwise specified. A site-specific sampling plan should specify the sampling depth, or provide specific criteria for the selection of intake depth for each well. If possible keep the pump intake two feet above the bottom of the well. Start the pump at the lowest speed setting and slowly increase the speed until discharge occurs. The initial pumping rate shall be approximately 0.1 liters per minute, however, the pumping rate shall not exceed 0.25 liters per minute. Measure the water level to ensure that drawdown in excess of 0.3 feet does not occur in the well. Adjust the pumping rate as necessary until little or no drawdown occurs. If the drawdown exceeds 0.3 feet, reduce pumping rate if possible. If drawdown still does not stabilize at a depth above the pump intake, shut the pump down and allow the well to recharge. It should be noted that stable drawdowns of 0.3 feet are desirable but not mandatory. Stabilization of the drawdown to a depth greater than 0.3 feet is acceptable as long as the depth at which stabilization occurs is above the pump intake. However, it is important that the stabilization depth is clearly recorded and maintained.
- 4.7.6. Monitor and record the water level and pumping rate at a minimum of every five minutes during purging. Calculate the volume of the discharge tubing, bladder pump (if used), and the flow-through cell. Monitor and record indicator field parameters (turbidity, pH, Eh, DO, temperature and specific conductance) in the well from the first water extracted during the purging process and at least every five minutes thereafter. Stabilization is considered to be achieved when three consecutive readings are within the following limits and no increasing or decreasing trend in the data can be observed:



- Turbidity (10% for values less than 5 and greater than 1 NTU). It should be noted that achievements of turbidity levels less than 5 NTUs are not mandatory but efforts should be made to collect a groundwater samples with the lowest turbidity achievable.
- DO (10%, measured as milligrams per liter).
- Specific Conductance and Temperature (3%).
- pH (+/- 0.1 unit).
- ORP/Eh (+/- 10 millivolts).

- 4.7.7. If after 2.5 hours of purging or the purging of three well volumes, (whichever comes first) the field parameters have not stabilized, purging may be discontinued to allow sample collection. Similarly, if it is not possible to obtain stabilization as described above as a result of slow recovery of the well, the well shall be evacuated and allowed to recover, at which point the samples should be collected immediately. The appropriate sampling forms shall include a notation that sample collection occurred without stabilization. Samples obtained from slow-yielding wells shall be collected as soon as a sufficient volume is available for a sample for each parameter.
- 4.7.8. Do **not** re-use purging equipment. Pumps shall be decontaminated between monitoring wells, in accordance with procedures noted in Section 4.1.
- 4.7.9. Record sampler's name, sampling time, volume of water purged, parameters measured, weather conditions, sample number, analyses required and all other pertinent information in the field notebook and/or appropriate field forms, and complete the chain of custody form.
- 4.7.10. Any water purged from the monitoring wells shall be stored in appropriate containers until the laboratory analyses are available. Then it should be disposed of in accordance with all applicable local, state and federal requirements.
- 4.7.11. Storage shall be in containers approved for storage of hazardous materials, and in an appropriate designated location at the facility.





#### 4.8. Sample Withdrawal

- 4.8.1. In order to ensure that the groundwater sample is representative of the formation, it is important to minimize physical alteration (i.e. agitation during purging and/or sample collection) or chemical contamination of the sample during the withdrawal process.
- 4.8.2. Use an appropriate pump to purge each well; the same pump used for purging shall be used for sample withdrawal.
- 4.8.3. The samples shall be collected at a location before entering the flow-through cell. To minimize the effects of water column agitation on sample quality, samples shall be collected from the pump tubing in the following order into pre-labeled sample containers:
- VOCs.
  - Total petroleum hydrocarbons.
  - Extractable organics (semivolatiles).
  - PCBs.
  - Metals.
  - Phenols.
  - Cyanide.
  - Chloride and sulfate.
  - Nitrate and ammonia.
  - Turbidity.
  - Radionuclides.
  - Purgeable organic carbon (POCs).
  - Purgeable organic halogens (POX).
  - Total organic halogens (TOX).
  - Total organic carbon (TOC).
- 4.8.4. Samples shall be obtained from the monitoring wells as soon as possible after purging. This may require waiting an extended period for low-yielding wells.



- 4.8.5. Samples collected for VOC analysis shall be free of any air bubbles and inverted upon filling. Bacterial samples shall be collected using dedicated gloves; taking care not to allow anything to touch the inside of the sampling container.
- 4.8.6. Samples collected for metals analysis, which are to be filtered in the field, shall be passed through an appropriately sized filter prior to placement in the sample bottle. Pre-rinse the filter with approximately 25 to 50 milliliters of groundwater prior to collecting the filtered metals sample. Filter sizes will generally be either 0.45 microns for dissolved metals and 10 microns for metals that could be present as colloids or adsorbed onto colloids that could be mobile in the aquifer. The appropriate filter size for the individual project must be provided in site-specific work instructions.

#### 4.9. "What If" Scenarios

- 4.9.1. Certain field conditions may be encountered that influence the choice of equipment to be used or altogether limit the feasibility of low-flow sampling techniques. The following is a brief description of select scenarios to provide field personnel with a guideline if similar circumstances are encountered

##### 4.9.2. Turbidity

- 4.9.2.1. If turbidity measurements do not stabilize as described above after 2.5 hours of purging or the evacuation of three well volumes, whichever comes first, sample collection can be initiated. Record observations of the color, clarity, and other observable characteristics of the groundwater (such as the presence or absence of particles) in the field paperwork
- 4.9.2.2. If samples are being collected for analysis for total (unfiltered) metals and the turbidity has not stabilized below 10 NTU, a sample for additional analysis for metals should also be collected after being filtered in the field through an in-line 10-micron filter, if specified in the work instructions.

##### 4.9.3. Peristaltic Pump



- 4.9.3.1. Difficulty may be encountered while advancing the flexible polyethylene peristaltic pump tubing to the desired depth within a deep well or older well. Excessive friction may result from the tubing contacting the sidewall of the well casing or accumulations of material on the well casing (i.e. mineral and bacterial deposits). In these scenarios, the tubing may coil within the well during advancement and prevent the desired depth from being attained. Efforts to weight the tubing should be attempted before using alternate pumping techniques.
- 4.9.3.2. If such well conditions are expected, a bladder pump or similarly submersible pump should be used instead of a peristaltic pump. A bladder pump provides sufficient mass on the tubing to allow for advancement in deep or older wells.
- 4.9.3.3. A peristaltic pump cannot be used to sample wells in which the depth to water is greater than approximately 25 feet.

#### 4.9.4. Sampling Depth

- 4.9.4.1. If conditions exist that prevent the appropriate pump or tubing from being advanced to the midpoint of the saturated portion of the screened interval, low-flow sampling techniques shall not be used. Instead, sampling shall be conducted using conventional purging and sampling techniques, as described in LEA SOP 10004 entitled *Liquid Sample Collection and Field Analysis*. Justification for not using low-flow sampling techniques must be provided in the field paperwork.

#### 4.10. Field Documentation

- 4.10.1. Field documentation shall include at a minimum: a chain-of-custody form, Field Data Record Groundwater Form, Sample Collection Form, Daily Field Report. Sample labels and sample seals shall be used for proper sample identification.
  - 4.10.1.1. The labels shall be sufficiently durable to withstand immersion for 48 hours without detaching and to withstand normal handling. The information provided shall be legible at all times.



4.10.1.2. The following information shall be provided on the sample label using an indelible pen:

- Sample identification number.
- Date and time of collection.
- Place of collection.
- Parameter(s) requested (if space permits).

4.10.1.3. Appropriate field forms will be used to log all pertinent information with an indelible pen. The following information shall be provided:

- Project and site identification.
- LEA commission number.
- Identification of well.
- Static water level measurement technique.
- Presence of immiscible layers and detection method.
- Time well purged.
- Collection method for immiscible layers and sample identification numbers.
- Well evacuation procedure/equipment.
- Sample withdrawal procedure/equipment.
- Date and time of collection.
- Types of sample containers used and sample identification numbers.
- Preservative(s) used.
- Parameters requested for analysis.
- Field analysis method(s).
- Whether or not field filtration was performed and the filter size, if appropriate.
- Field observations on day of sampling event.
- Record of site activities.
- Field personnel.



- Climatic conditions, including air temperature.
- Status of total production.
- Record of non-productive time.

4.10.1.4. The Field Sampling Record shall include at a minimum the following information:

- Identification of well.
- Date and time of collection.
- Name of collector.
- Sample number.

4.10.1.5. The chain-of-custody record shall include the following information:

- Company's name and location.
- Date and time of collection.
- Sample number.
- Container type, number, size.
- Preservative used.
- Signature of collector.
- Signatures of persons involved in the chain of possession.
- Analyses to be performed.
- Type and number of samples.

4.10.1.6. The Field Data Record Groundwater Form shall be updated during the sampling of each well and include the following information:

- Identification of well.
- Well depth, diameter, depth to water.
- Static water level depth and measurement technique.
- Purge volume and pumping rate.
- Time well is purged.



- Measurements of initial field parameters and all subsequent readings.
- Any specific circumstances, as described above, such as field filtering, lack of stabilization of parameters, water characteristics, etc.
- LEA commission number.
- Date.

4.10.1.7. The Daily Field Record shall include the following information:

- Client's name, location, LEA commission number, date.
- Instrument make, model, and type.
- Calibration readings.
- Calibration/filtration lot numbers.
- Field personnel and signature.

4.10.1.8. The Daily Field Record shall assure the completeness of the sampling round and include the following information:

- Reviewer's name, date, and LEA commission number.
- Review of all necessary site activities and field forms.
- Statement of corrective actions for deficiencies.

## 5. References

- 5.1. United States Environmental Protection Agency (EPA), Region I. *Low Stress (Low Flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells*, July 30, 1996, Revision 2.
- 5.2. EPA. *Groundwater Sampling Guidelines for Superfund and RCRA Project Managers – Groundwater Forum Issue Paper*, Office of Solid Waste and Emergency Response, (EPA 542-S-02-001), May 2002.
- 5.3. Robert W. Puls and Michael Barcelona, EPA. *Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures*, in Groundwater Issue, (EPA/540/S-95/504), April 1996.



- 5.4. Connecticut Department of Environmental Protection, Bureau of Water Management, Permitting Enforcement and Remediation Division. *Site Characterization Guidance Document*, Draft, June 12, 2000.

END OF DOCUMENT



**Loureiro Engineering Associates, Inc.  
Standard Operating Procedure  
for  
Quality Assurance/Quality Control Measures  
for  
Field Activities**

**SOP ID: 10005  
Date Initiated: 02/20/90  
Revision No. 004: 12/31/01**

<b>Approved By: <u>/s/ Jeffrey J. Loureiro</u></b>	<b><u>12/19/01</u></b>
<b>Jeffrey J. Loureiro</b>	<b>Date</b>
<b>President</b>	
<b><u>/s/ Nick D. Skoularikis</u></b>	<b><u>12/19/01</u></b>
<b>Nick D. Skoularikis</b>	<b>Date</b>
<b>Director of Quality</b>	



## REVISION RECORD

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<u>Rev #</u>	<u>Date</u>	<u>Additions/Deletions/Modifications</u>
Initial Issue	02/20/90	
001-003	-	No record.
004	12/31/01	Updated to reflect new SOP format. Added section 4.3, Results Evaluation. Minor revisions throughout.



**Loureiro Engineering Associates, Inc.**  
**Standard Operating Procedure**  
**for**  
**Quality Assurance/Quality Control Measures**  
**for**  
**Field Activities**

**1. Statement of Purpose**

This document describes procedures to be followed for proper Quality Assurance Quality Control (QA/QC) practices which shall incorporate all activities associated with sampling tool and instrument preparation, field measurements and sampling, proper documentation of field and post-field activities, QC sample preparation, chain-of-custody protocol and laboratory analytical procedures. The use of specific QA/QC measures is project-specific as defined in the project work plan. This standard operating procedure (SOP) was adopted in accordance with the Environmental Protection Agency (EPA) document *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods* (SW-846).

**2. Definitions**

- 2.1. Trip Blank: An aliquot of organic-free water or equivalent neutral reference material carried into the field but not exposed.
- 2.2. Equipment Blank: An aliquot of analyte-free deionized water processed through all sample collection equipment.
- 2.3. Replicate Samples: Samples that have been divided into two or more portions in the field.
- 2.4. Collocated Samples: Independent samples collected under identical circumstances in a way that they are equally representative of the parameter of interest.
- 2.5. Performance Evaluation (PE) Sample: A sample that mimics actual samples in all possible aspects, except that its composition is known to the auditor and unknown to the analyst.

**3. Equipment**

None



## 4. Procedure

### 4.1. General

4.1.1. All QA/QC sample preparation procedures shall be properly documented including:

- Name of person(s) or laboratory involved in sample preparation.
- Reagents used.
- Sample number.
- Analyses required.
- Concentration calculations.
- Accuracy of measurements.
- Number, type, size of containers used.
- Preservation method.
- Date and time of sample preparation.

4.1.2. All information shall be included in the field logbook and/or appropriate field forms, but not necessarily in the chain-of-custody record except as needed for proper sample identification and analysis. Blind sample numbers are being used in order not to disclose the nature of the sample to the laboratory. No information that would identify the sample as a QA/QC sample shall be included in the chain-of-custody record.

4.1.3. At the conclusion of each sampling day, a quality control review shall be conducted using the Field Quality Review Checklist and the Daily Field Report.

### 4.2. QC Sample Preparation

#### 4.2.1. Trip Blank

4.2.1.1. Contaminated trip blanks may indicate contamination of the samples during the field trip or shipment to the lab, cross-contamination between the samples, contaminated sample vials, or improper handling.

4.2.1.2. Trip blanks shall be used only with samples that are to be analyzed for volatile organic compounds.



- 4.2.1.3. One trip blank shall be included per shipping container (cooler) carrying sample soil and/or groundwater samples that are to be analyzed for volatile organic compounds
- 4.2.1.4. Trip blanks are prepared using analyte-free deionized organic-free water prior to field activities associated with the sampling event, usually by the laboratory providing the sampling containers. Each trip blank is placed in a 40-ml glass VOA vial and is carried in the same shipping container as the sample(s). Trip blanks should not be opened at any time during transport.

#### 4.2.2. Equipment Blank

- 4.2.2.1. The purpose of an equipment/rinsate blank is to determine if decontamination procedures were adequate or if any of the equipment might contribute contaminants to the sample.
- 4.2.2.2. An equipment blank is prepared by running analyte-free deionized water through all sample collection equipment (bailers, pumps, filters, split-spoon) and placing it in the appropriate sample containers for analysis. If equipment has been decontaminated in the field, the equipment blank shall be collected after decontamination procedures have been performed.
- 4.2.2.3. Equipment blanks shall be used when sampling surface water, groundwater, soil, and sediment.
- 4.2.2.4. One equipment blank shall be collected for each sample bottle/preservation technique/analysis procedure per matrix per sampling event, or as otherwise specified in project-specific documents.

#### 4.2.3. Replicate Samples

- 4.2.3.1. Replicate samples provide precision information on handling, shipping, storage, preparation and laboratory analysis.
- 4.2.3.2. Replicate samples are samples that have been divided into two or more portions in the field. An example of a replicate sample is two identical sample bottles filled with water from the same bailer retrieval. To ensure homogeneity, the bailer should be emptied into a clean, decontaminated beaker used exclusively



for the purpose and containing sufficient volume for both sample containers, and from that into the sample containers.

- 4.2.3.3. Replicate samples cannot be used when sampling for volatile organic compounds.
- 4.2.3.4. One replicate sample shall be obtained for each sample bottle/preservation technique/analysis procedure per sampling event or one out of every 20 samples, unless collocated samples are used (see below), or as otherwise specified in project-specific documents.

#### 4.2.4. Collocated Samples

- 4.2.4.1. Collocated samples provide precision information on sample acquisition, homogeneity, handling, shipping, storage, preparation and laboratory analysis.
- 4.2.4.2. Collocated samples are independent samples collected in such a way so that presumably they are equally representative of the parameter of interest. Examples of collocated samples are groundwater samples collected sequentially, soil core samples collected side-by-side, or air samples collected essentially at the same time from the same manifold.
- 4.2.4.3. Collocated samples are especially useful when sampling for volatile organic compounds, for which replicate samples cannot be used.
- 4.2.4.4. Collocated samples shall be obtained for each sample bottle/preservation technique/analysis procedure per sampling event or one out of every 20 samples, unless replicate samples are used (see above), or as otherwise specified in project-specific documents.

#### 4.2.5. Split Samples

- 4.2.5.1. The purpose of split samples is to provide an assessment of the laboratory analytical procedure.
- 4.2.5.2. Split samples are collocated or replicate samples sent to two (or more) different laboratories.
- 4.2.5.3. Split samples can be used with any sample media. Split samples can be used in conjunction with spiked samples (see



below). In case contradictory results are obtained from the samples split between different laboratories, the spiked samples can be used to verify the analytical data (provided that the spiked samples were properly prepared and the appropriate documentation is available).

- 4.2.5.4. When used, one split/spiked sample per sample bottle/preservation technique/analysis procedure per sampling event or every 20 samples shall be included, or as specified in project-specific documents.

#### 4.2.6. Spiked Samples

- 4.2.6.1. The purpose of spiked samples is to provide information on the precision of the laboratory analytical procedure. However, besides a wrong preparation, several other sources of error exist such as analyte stability, holding time and interactions with the sample matrix.
- 4.2.6.2. Spiked samples are samples spiked with the contaminants of interest. The compounds used for spiking should be of the same chemical group as the contaminants being investigated, but they do not have to be the exact chemical compounds. Spiking should be carefully designed and performed prior to the field investigations. Field matrix spikes are not generally recommended because of the high level of technical expertise required for proper preparation and documentation.
- 4.2.6.3. Can be used with any sample media, however, liquid matrices are preferred due to uniformity of mixing.
- 4.2.6.4. When used, one split/spiked sample per sample bottle/preservation technique/analysis procedure per sampling event or every 20 samples shall be included, or as otherwise specified in project-specific documents. In order to ensure defensible data, performance evaluation (PE) samples, prepared by an independent vendor, are typically being used. The ordering and handling procedures and record keeping requirements are discussed in Loureiro Engineering Associates, Inc. (LEA's) *SOP for Preparation of PE Samples* (SOP 10030).



#### 4.3. Result Evaluation

4.3.1. The analytical results on QA/QC samples should be evaluated along with the remaining analytical data as follows:

4.3.1.1. No constituents should be detected in the trip blank or equipment blank.

4.3.1.2. The relative percent differences (RPDs) shall be computed for all constituents detected in both duplicate samples used.

The RPD between two measurements (e.g., M1 and M2) is calculated as follows:

$$RPD = \frac{|M1 - M2|}{(M1 + M2)/2} \times 100\%$$

4.3.1.3. Any deviations in the performance evaluation samples shall be brought to the attention of the laboratory. An investigation shall then be performed by the laboratory of the method used, laboratory QA/QC procedures followed, and computations performed. The laboratory shall report the results of their investigation and any corrective actions taken.

#### 5. References

5.1. EPA, *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods* (SW-846).

END OF DOCUMENT



## **ATTACHMENT C-2**

### **Performance Evaluation Sample Results**





# RESULTS OF PERFORMANCE SAMPLE EVALUATION

*P&W East Hartford, East Hartford, Connecticut*



Page

1

Loureiro Engineering Associates, Inc.

Location Identifier: Performance

Sample Identifier 1130893 09/11/2009 14:00 Performance Evaluation, Water

Chemical Name	Reported Concentration	Qualifiers	R.L.	M.D.L.	Units	Dil.	Lab.	Lab. Number	Reference	Upper Limit	Lower Limit	Result
1,1,1,2-Tetrachloroethane	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M85761-12				
1,1,1-Trichloroethane	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M85761-12				
1,1,2,2-Tetrachloroethane	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M85761-12				
1,1,2-Trichloroethane	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M85761-12				
1,1,2-Trichlorotrifluoroethane	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M85761-12				
1,1-Dichloroethane	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M85761-12				
1,1-Dichloroethylene	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M85761-12				
1,1-Dichloropropene	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M85761-12				
1,2,3-Trichlorobenzene	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M85761-12				
1,2,3-Trichloropropane	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M85761-12				
1,2,4-Trichlorobenzene	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M85761-12				
1,2,4-Trimethylbenzene	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M85761-12				
1,2-Dibromo-3-Chloropropane	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M85761-12				
1,2-Dichloroethane	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M85761-12				
1,2-Dichloropropane	ND<2.0	U	2.0	2.0	ug/L	1	ACTM	M85761-12				
1,3,5-Trimethylbenzene	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M85761-12				
1,3-Dichloropropane	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M85761-12				
2-Hexanone	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M85761-12				
4-Isopropyltoluene	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M85761-12				
Acetone	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M85761-12				
Acrylonitrile	ND<25	U	25	25	ug/L	1	ACTM	M85761-12				
Arochlor 1016	ND<0.25	U	0.25	0.25	ug/L	1	ACTM	M85761-12				
Arochlor 1221	ND<0.25	U	0.25	0.25	ug/L	1	ACTM	M85761-12				
Arochlor 1232	ND<0.25	U	0.25	0.25	ug/L	1	ACTM	M85761-12				
Arochlor 1242	ND<0.25	U	0.25	0.25	ug/L	1	ACTM	M85761-12				
Arochlor 1248	0.96		0.25		ug/L	1	ACTM	M85761-12	1.31	1.79	0.687	Pass
Arochlor 1254	ND<0.25	U	0.25	0.25	ug/L	1	ACTM	M85761-12				
Arochlor 1260	ND<0.25	U	0.25	0.25	ug/L	1	ACTM	M85761-12				
Arochlor 1262	ND<0.25	U	0.25	0.25	ug/L	1	ACTM	M85761-12				
Arochlor 1268	ND<0.25	U	0.25	0.25	ug/L	1	ACTM	M85761-12				
Arsenic (unfiltered)	0.0064		0.0040	0.001	mg/L	1	ACTM	M85761-13	0.00700	0.00769	0.00605	Pass
Barium (unfiltered)	0.408		0.2	0.00057	mg/L	1	ACTM	M85761-13	0.400	0.435	0.364	Pass
Benzene	ND<0.50	U	0.50	0.50	ug/L	1	ACTM	M85761-12				
Bromobenzene	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M85761-12				
Bromodichloromethane	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M85761-12				

# RESULTS OF PERFORMANCE SAMPLE EVALUATION

## P&W East Hartford, East Hartford, Connecticut



Page 2

Loureiro Engineering Associates, Inc.

Bromoform	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M85761-12					
Bromomethane	ND<2.0	U	2.0	2.0	ug/L	1	ACTM	M85761-12					
Butyl Benzene	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M85761-12					
Cadmium (unfiltered)	0.101		0.0040	0.00024	mg/L	1	ACTM	M85761-13	0.100	0.106	0.0877	Pass	
Carbon Disulfide	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M85761-12					
Carbon Tetrachloride	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M85761-12					
Chlorobenzene	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M85761-12					
Chlorodibromomethane	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M85761-12					
Chloroethane	ND<2.0	U	2.0	2.0	ug/L	1	ACTM	M85761-12					
Chloroform	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M85761-12					
Chloromethane	ND<2.0	U	2.0	2.0	ug/L	1	ACTM	M85761-12					
Chromium, Total (unfiltered)	0.203		0.01	0.00081	mg/L	1	ACTM	M85761-13	0.200	0.218	0.182	Pass	
Copper (unfiltered)	0.0410		0.025	0.0022	mg/L	1	ACTM	M85761-13	0.0400	0.0436	0.0360	Pass	
Dichlorodifluoromethane	ND<2.0	U	2.0	2.0	ug/L	1	ACTM	M85761-12					
Ethylbenzene	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M85761-12					
Ethylene Dibromide	ND<2.0	U	2.0	2.0	ug/L	1	ACTM	M85761-12					
Hexachlorobutadiene	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M85761-12					
Isocumene	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M85761-12					
Isopropylbenzene (Cumene)	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M85761-12					
Lead (unfiltered)	ND<0.0050	U	0.0050	0.0011	mg/L	1	ACTM	M85761-13					
Mercury (unfiltered)	ND<0.00020	U	0.00020	0.000035	mg/L	1	ACTM	M85761-13					
Methyl Ethyl ketone	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M85761-12					
Methyl Isobutyl ketone	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M85761-12					
Methyl tert-Butyl ether	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M85761-12					
Methylene Chloride	ND<2.0	U	2.0	2.0	ug/L	1	ACTM	M85761-12					
Methylene Dibromide	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M85761-12					
Naphthalene	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M85761-12					
Nickel (unfiltered)	0.605		0.04	0.00024	mg/L	1	ACTM	M85761-13	0.600	0.657	0.544	Pass	
Selenium (unfiltered)	ND<0.01	U	0.01	0.0019	mg/L	1	ACTM	M85761-13					
Silver (unfiltered)	ND<0.0050	U	0.0050	0.00054	mg/L	1	ACTM	M85761-13					
Styrene	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M85761-12					
Tetrachloroethylene	39.6		1.0		ug/L	1	ACTM	M85761-12	30.3	36.2	19.3	FAIL	
Tetrahydrofuran	ND<10	U	10	10	ug/L	1	ACTM	M85761-12					
Toluene	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M85761-12					
Trichloroethylene	31.4		1.0		ug/L	1	ACTM	M85761-12	24.5	29.5	17.8	FAIL	
Trichlorofluoromethane	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M85761-12					
Vinyl Chloride	163		1.0		ug/L	1	ACTM	M85761-12	91.0	140	50.0	FAIL	
Xylenes,m- & p-	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M85761-12					
Zinc (unfiltered)	0.0316		0.02	0.00074	mg/L	1	ACTM	M85761-13	0.0300	0.0331	0.0272	Pass	
cis-1,2-Dichloroethylene	131		1.0		ug/L	1	ACTM	M85761-12	92.8	115	72.8	FAIL	

# RESULTS OF PERFORMANCE SAMPLE EVALUATION

*P&W East Hartford, East Hartford, Connecticut*



Loureiro Engineering Associates, Inc.

Page 3

cis-1,3-Dichloropropene	ND<0.50	U	0.50	0.50	ug/L	1	ACTM	M85761-12				
m-Dichlorobenzene	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M85761-12				
o-Chlorotoluene	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M85761-12				
o-Dichlorobenzene	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M85761-12				
o-Xylene	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M85761-12				
p-Chlorotoluene	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M85761-12				
p-Dichlorobenzene	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M85761-12				
sec-Butylbenzene	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M85761-12				
sec-Dichloropropane	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M85761-12				
tert-Butylbenzene	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M85761-12				
trans-1,2-Dichloroethylene	31.7		1.0		ug/L	1	ACTM	M85761-12	23.6	29.9	17.6	FAIL
trans-1,3-Dichloropropene	ND<0.50	U	0.50	0.50	ug/L	1	ACTM	M85761-12				
trans-1,4-Dichlorobutene	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M85761-12				

Location Identifier: Performance

Sample Identifier 1130894 09/11/2009 14:10 Performance Evaluation, Water

Chemical Name	Reported Concentration	Qualifiers	R.L.	M.D.L.	Units	Dil.	Lab.	Lab. Number	Reference	Upper Limit	Lower Limit	Result
Total Petroleum Hydrocarbons (CT ETPH)	0.287		0.080		mg/L	1	ACTM	M85761-11	1.00	1.21	0.304	FAIL

# RESULTS OF PERFORMANCE SAMPLE EVALUATION

*P&W East Hartford, East Hartford, Connecticut*



Page

1

Loureiro Engineering Associates, Inc.

Location Identifier: Performance

Sample Identifier 1136024 12/09/2009 13:45 Performance Evaluation, Water

Chemical Name	Reported Concentration	Qualifiers	R.L.	M.D.L.	Units	Dil.	Lab.	Lab. Number	Reference	Upper Limit	Lower Limit	Result
1,1,1,2-Tetrachloroethane	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M87994-8				
1,1,1-Trichloroethane	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M87994-8				
1,1,2,2-Tetrachloroethane	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M87994-8				
1,1,2-Trichloroethane	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M87994-8				
1,1,2-Trichlorotrifluoroethane	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M87994-8				
1,1-Dichloroethane	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M87994-8				
1,1-Dichloroethylene	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M87994-8				
1,1-Dichloropropene	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M87994-8				
1,2,3-Trichlorobenzene	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M87994-8				
1,2,3-Trichloropropane	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M87994-8				
1,2,4-Trichlorobenzene	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M87994-8				
1,2,4-Trimethylbenzene	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M87994-8				
1,2-Dibromo-3-Chloropropane	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M87994-8				
1,2-Dichloroethane	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M87994-8				
1,2-Dichloropropane	ND<2.0	U	2.0	2.0	ug/L	1	ACTM	M87994-8				
1,3,5-Trimethylbenzene	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M87994-8				
1,3-Dichloropropane	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M87994-8				
2-Hexanone	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M87994-8				
4-Isopropyltoluene	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M87994-8				
Acetone	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M87994-8				
Acrylonitrile	ND<25	U	25	25	ug/L	1	ACTM	M87994-8				
Benzene	ND<0.50	U	0.50	0.50	ug/L	1	ACTM	M87994-8				
Bromobenzene	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M87994-8				
Bromodichloromethane	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M87994-8				
Bromoform	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M87994-8				
Bromomethane	ND<2.0	U	2.0	2.0	ug/L	1	ACTM	M87994-8				
Butyl Benzene	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M87994-8				
Carbon Disulfide	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M87994-8				
Carbon Tetrachloride	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M87994-8				
Chlorobenzene	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M87994-8				
Chlorodibromomethane	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M87994-8				
Chloroethane	ND<2.0	U	2.0	2.0	ug/L	1	ACTM	M87994-8				
Chloroform	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M87994-8				
Chloromethane	ND<2.0	U	2.0	2.0	ug/L	1	ACTM	M87994-8				
Dichlorodifluoromethane	ND<2.0	U	2.0	2.0	ug/L	1	ACTM	M87994-8				

# RESULTS OF PERFORMANCE SAMPLE EVALUATION

## P&W East Hartford, East Hartford, Connecticut



Loureiro Engineering Associates, Inc.

Page 2

Ethylbenzene	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M87994-8				
Ethylene Dibromide	ND<2.0	U	2.0	2.0	ug/L	1	ACTM	M87994-8				
Hexachlorobutadiene	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M87994-8				
Isocumene	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M87994-8				
Isopropylbenzene (Cumene)	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M87994-8				
Methyl Ethyl ketone	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M87994-8				
Methyl Isobutyl ketone	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M87994-8				
Methyl tert-Butyl ether	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M87994-8				
Methylene Chloride	ND<2.0	U	2.0	2.0	ug/L	1	ACTM	M87994-8				
Methylene Dibromide	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M87994-8				
Naphthalene	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M87994-8				
Styrene	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M87994-8				
Tetrachloroethylene	35.0		1.0		ug/L	1	ACTM	M87994-8	31.5	37.9	21.9	Pass
Tetrahydrofuran	ND<10	U	10	10	ug/L	1	ACTM	M87994-8				
Toluene	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M87994-8				
Trichloroethylene	23.7		1.0		ug/L	1	ACTM	M87994-8	25.4	30.2	19.1	Pass
Trichlorofluoromethane	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M87994-8				
Vinyl Chloride	104		1.0		ug/L	1	ACTM	M87994-8	94.6	138	58.1	Pass
Xylenes,m- & p-	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M87994-8				
cis-1,2-Dichloroethylene	90.7		1.0		ug/L	1	ACTM	M87994-8	96.5	119	73.2	Pass
cis-1,3-Dichloropropene	ND<0.50	U	0.50	0.50	ug/L	1	ACTM	M87994-8				
m-Dichlorobenzene	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M87994-8				
o-Chlorotoluene	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M87994-8				
o-Dichlorobenzene	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M87994-8				
o-Xylene	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M87994-8				
p-Chlorotoluene	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M87994-8				
p-Dichlorobenzene	ND<1.0	U	1.0	1.0	ug/L	1	ACTM	M87994-8				
sec-Butylbenzene	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M87994-8				
sec-Dichloropropane	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M87994-8				
tert-Butylbenzene	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M87994-8				
trans-1,2-Dichloroethylene	20.3		1.0		ug/L	1	ACTM	M87994-8	24.6	30.5	18.5	Pass
trans-1,3-Dichloropropene	ND<0.50	U	0.50	0.50	ug/L	1	ACTM	M87994-8				
trans-1,4-Dichlorobutene	ND<5.0	U	5.0	5.0	ug/L	1	ACTM	M87994-8				

**ATTACHMENT C-3**  
**Data Quality Assessment Worksheets**



# Reasons Confidence Protocol - Data Quality Assessment Worksheet (DQA)

Laboratory - SDG: Accutest - M81183  
 Project: UTC: Willow Brook & Pond 2009 Quarterly GW Monitoring  
 Commission #: 88UT907  
 Date Samples Collected: 3/10/2009  
 RCP Certification Form Included: Yes  
 Laboratory Case Narrative Included: Yes

Note 1: RLs are not specified in the RCPs but should be considered with respect to data usability

Note 2: Bias High: reported result may be lower, RLs are accepted as reported.

Bias Low: reported result may be higher, RLs may be higher

SAMPLE #	Lab #	Location ID	COMPOUND	QC OUTLIER	%R	RPD	BIAS	COMMENTS
1117643	M81183-1, -2	WT-MW-41	Freon 113	Laboratory Control Sample	135%		high	
1117644	M81183-3, -4	WT-MW-43	Freon 113	Laboratory Control Sample	135%		high	
1117645	M81183-5, -6	WT-MW-42						No QC issues
1117649	M81183-7, -8	WT-MW-48						No QC issues
1117650	M81183-9, -10	WT-MW-45						No QC issues
1117651	M81183-11, -12	WT-MW-47						No QC issues
1117663	M81183-13, -14	EQUIPMENT						No QC issues
1117662	M81183-15	TRIP BLANK						No QC issues
1117646	M81183-16, -17	WT-MW-44						No QC issues
1117647	M81183-18, -19	WT-MW-49						No QC issues
1117648	M81183-20, -21	WT-MW-46	Freon 113	Laboratory Control Sample	131%		high	
			Acetone	CCAL	>30% Diff		non-directional	
			Dichlorodifluoromethane	CCAL	>30% Diff		non-directional	

# Reasonable Confidence Protocol - Data Quality Assessment Worksheet (DQA)

Laboratory - SDG: Accutest - M81204  
 Project: UTC: Willow Brook & Pond 2009 Quarterly GW Monitoring  
 Commission #: 88UT907  
 Date Samples Collected: 3/11/2009  
 RCP Certification Form Included: Yes  
 Laboratory Case Narrative Included: Yes

Note 1: RLs are not specified in the RCPs but should be considered with respect to data usability

Note 2: Bias High: reported result may be lower, RLs are accepted as reported.

Bias Low: reported result may be higher, RLs may be higher

SAMPLE #	Lab #	Location ID	COMPOUND	QC OUTLIER	%R	RPD	BIAS	COMMENTS
1117655	M81204-1, -2	WT-MW-50						No QC issues
1117656	M81204-3, -4	WT-MW-40						No QC issues
1117657	M81204-5, -6	WT-MW-19SR						No QC issues
1117661	M81204-7, -8	WT-MW-50						No QC issues
1117660	M81204-9	TRIP BLANK						No QC issues
1117652	M81204-10, -11	WT-MW-57						No QC issues
1117653	M81204-12, -13	WT-MW-58						No QC issues
1117654	M81204-14, -15	WT-MW-59						No QC issues



## Reasonable Confidence Protocol - Data Quality Assessment Worksheet (DQA)

Laboratory - SDG: Accutest - M83376  
 Project: UTC: Willow Brook & Pond 2009 Quarterly GW Monitoring  
 Commission # 88UT907  
 Date Samples Collected 6/4/2009  
 RCP Certification Form Included: Yes  
 Laboratory Case Narrative Included: Yes

Note 1: Bias High: reported result may be lower, RLs are accepted as reported.  
 Bias Low: reported result may be higher, RLs may be higher

SAMPLE #	Lab #	Location ID	COMPOUND	QC OUTLIER	%R	RPD	BIAS	COMMENTS
1123432	-1	WT-MW-48	Acetone	Continuing Calibration Check	>30% Diff		non-directional	
1123432	-1	WT-MW-48	2,2-dichloropropane	Laboratory Control Sample	39		low	
1123432UF	-2	WT-MW-48	No QC Issues					
1123433	-3	WT-MW-57	Acetone	Continuing Calibration Check	>30% Diff		non-directional	
1123433	-3	WT-MW-57	2,2-dichloropropane	Laboratory Control Sample	39		low	
1123433UF	-4	WT-MW-57	No QC Issues					
1123466	-5	CS-SB-315	Acetone	Initial Calibration Verification	>35% Diff		non-directional	
1123466	-5	CS-SB-315	Chloromethane	Continuing Calibration Check	>30% Diff		non-directional	
1123466	-5	CS-SB-315	Carbon tetrachloride	Continuing Calibration Check	>30% Diff		non-directional	
1123466	-5	CS-SB-315	Carbon tetrachloride	Laboratory Control Sample	135		high	
1123429	-6	WT-MW-47	Acetone	Continuing Calibration Check	>30% Diff		non-directional	
1123429	-6	WT-MW-47	2,2-dichloropropane	Laboratory Control Sample	39		low	
1123429UF	-7	WT-MW-47	No QC Issues					
1123430	-8	WT-MW-46	Acetone	Continuing Calibration Check	>30% Diff		non-directional	
1123430	-8	WT-MW-46	2,2-dichloropropane	Laboratory Control Sample	39		low	
1123430UF	-9	WT-MW-46	No QC Issues					
1123431	-10	WT-MW-49	Acetone	Continuing Calibration Check	>30% Diff		non-directional	
1123431	-10	WT-MW-49	2,2-dichloropropane	Laboratory Control Sample	39		low	
1123431UF	-11	WT-MW-49	No QC Issues					
1123426	-12	WT-MW-45	Acetone	Continuing Calibration Check	>30% Diff		non-directional	
1123426	-12	WT-MW-45	2,2-dichloropropane	Laboratory Control Sample	39		low	
1123426UF	-13	WT-MW-45	No QC Issues					
1123428	-14	WT-MW-58	Acetone	Continuing Calibration Check	>30% Diff		non-directional	
1123428	-14	WT-MW-58	2,2-dichloropropane	Laboratory Control Sample	39		low	
1123428UF	-15	WT-MW-58	No QC Issues					

# Reasonable Confidence Protocol - Data Quality Assessment Worksheet (DQA)

Laboratory - SDG: Accutest - M83394  
 Project: UTC: Willow Brook & Pond 2009 Quarterly GW Monitoring  
 Commission # 88UT907  
 Date Samples Collected 6/5/2009  
 RCP Certification Form Included: Yes  
 Laboratory Case Narrative Included: Yes

Note 1: Bias High: reported result may be lower, RLs are accepted as reported.  
 Bias Low: reported result may be higher, RLs may be higher

SAMPLE #	Lab #	Location ID	COMPOUND	QC OUTLIER	%R	RPD	BIAS	COMMENTS
1123427	-1	WT-MW-59	Acetone	Continuing Calibration Check	>30% Diff		non-directional	
1123427	-1	WT-MW-59	Acrylonitrile	Continuing Calibration Check	>30% Diff		non-directional	
1123427	-1	WT-MW-59	2,2-dichloropropane	Continuing Calibration Check	>30% Diff		non-directional	
1123427	-1	WT-MW-59	Acetone	Laboratory Control Sample	140 / 138		high	
1123427	-1	WT-MW-59	2,2-dichloropropane	Laboratory Control Sample	47	65	low / non-directional	
1123427	-1	WT-MW-59	Tetrachydrofuran	Laboratory Control Sample	131 / 132		high	
1123427UF	-2	WT-MW-59	No QC Issues					
1123436	-3	WT-MW-40	Acetone	Continuing Calibration Check	>30% Diff		non-directional	
1123436	-3	WT-MW-40	Acrylonitrile	Continuing Calibration Check	>30% Diff		non-directional	
1123436	-3	WT-MW-40	2,2-dichloropropane	Continuing Calibration Check	>30% Diff		non-directional	
1123436	-3	WT-MW-40	Acetone	Laboratory Control Sample	140 / 138		high	
1123436	-3	WT-MW-40	2,2-dichloropropane	Laboratory Control Sample	47	65	low / non-directional	
1123436	-3	WT-MW-40	Tetrachydrofuran	Laboratory Control Sample	131 / 132		high	
1123436UF	-4	WT-MW-40	No QC Issues					
1123437	-5	WT-MW-19SR	Acetone	Continuing Calibration Check	>30% Diff		non-directional	
1123437	-5	WT-MW-19SR	Acrylonitrile	Continuing Calibration Check	>30% Diff		non-directional	
1123437	-5	WT-MW-19SR	2,2-dichloropropane	Continuing Calibration Check	>30% Diff		non-directional	
1123437	-5	WT-MW-19SR	Acetone	Laboratory Control Sample	140 / 138		high	
1123437	-5	WT-MW-19SR	2,2-dichloropropane	Laboratory Control Sample	47	65	low / non-directional	
1123437	-5	WT-MW-19SR	Tetrachydrofuran	Laboratory Control Sample	131 / 132		high	
113437UF	-6	WT-MW-19SR	No QC Issues					
1123434	-7	WT-MW-41	Acetone	Continuing Calibration Check	>30% Diff		non-directional	
1123434	-7	WT-MW-41	Acrylonitrile	Continuing Calibration Check	>30% Diff		non-directional	
1123434	-7	WT-MW-41	2,2-dichloropropane	Continuing Calibration Check	>30% Diff		non-directional	
1123434	-7	WT-MW-41	Acetone	Laboratory Control Sample	140 / 138		high	
1123434	-7	WT-MW-41	2,2-dichloropropane	Laboratory Control Sample	47	65	low / non-directional	
1123434	-7	WT-MW-41	Tetrachydrofuran	Laboratory Control Sample	131 / 132		high	
1123434UF	-8	WT-MW-41	No QC Issues					
1123435	-9	WT-MW-42	Acetone	Continuing Calibration Check	>30% Diff		non-directional	
1123435	-9	WT-MW-42	Acrylonitrile	Continuing Calibration Check	>30% Diff		non-directional	
1123435	-9	WT-MW-42	2,2-dichloropropane	Continuing Calibration Check	>30% Diff		non-directional	
1123435	-9	WT-MW-42	Acetone	Laboratory Control Sample	140 / 138		high	
1123435	-9	WT-MW-42	2,2-dichloropropane	Laboratory Control Sample	47	65	low / non-directional	
1123435	-9	WT-MW-42	Tetrachydrofuran	Laboratory Control Sample	131 / 132		high	

1123435UF	-10	WT-MW-42	No QC Issues				
1123443	-11	Trip Blank	Acetone	Continuing Calibration Check	>30% Diff		non-directional
1123443	-11	Trip Blank	Acrylonitrile	Continuing Calibration Check	>30% Diff		non-directional
1123443	-11	Trip Blank	2,2-dichloropropane	Continuing Calibration Check	>30% Diff		non-directional
1123443	-11	Trip Blank	Acetone	Laboratory Control Sample	140 / 138		high
1123443	-11	Trip Blank	2,2-dichloropropane	Laboratory Control Sample	47	65	low / non-directional
1123443	-11	Trip Blank	Tetrachydrofuran	Laboratory Control Sample	131 / 132		high
1123444	-12	Equipment Blank	Acetone	Continuing Calibration Check	>30% Diff		non-directional
1123444	-12	Equipment Blank	Acrylonitrile	Continuing Calibration Check	>30% Diff		non-directional
1123444	-12	Equipment Blank	2,2-dichloropropane	Continuing Calibration Check	>30% Diff		non-directional
1123444	-12	Equipment Blank	Acetone	Laboratory Control Sample	140 / 138		high
1123444	-12	Equipment Blank	2,2-dichloropropane	Laboratory Control Sample	47	65	low / non-directional
1123444	-12	Equipment Blank	Tetrachydrofuran	Laboratory Control Sample	131 / 132		high
1123444UF	-13	Equipment Blank	No QC Issues				
1123441	-14	WT-MW-44	Acetone	Continuing Calibration Check	>30% Diff		non-directional
1123441	-14	WT-MW-44	Acrylonitrile	Continuing Calibration Check	>30% Diff		non-directional
1123441	-14	WT-MW-44	2,2-dichloropropane	Continuing Calibration Check	>30% Diff		non-directional
1123441	-14	WT-MW-44	Acetone	Laboratory Control Sample	140 / 138		high
1123441	-14	WT-MW-44	2,2-dichloropropane	Laboratory Control Sample	47	65	low / non-directional
1123441	-14	WT-MW-44	Tetrachydrofuran	Laboratory Control Sample	131 / 132		high
1123441	-14	WT-MW-44	Acrylonitrile	MS/MSD	143 / 141		high
1123441	-14	WT-MW-44	Chloromethane	MS/MSD	142 / 150		high
1123441	-14	WT-MW-44	Napthalene	MS/MSD	66		low
1123441	-14	WT-MW-44	Tetrachydrofuran	MS/MSD	147 / 145		high
1123441	-14	WT-MW-44	Vinyl Chloride	MS/MSD	137 / 138		high
1123441UF	-15	WT-MW-44	No QC Issues				
1123438	-16	WT-MW-50	Acetone	Continuing Calibration Check	>30% Diff		non-directional
1123438	-16	WT-MW-50	Acrylonitrile	Continuing Calibration Check	>30% Diff		non-directional
1123438	-16	WT-MW-50	2,2-dichloropropane	Continuing Calibration Check	>30% Diff		non-directional
1123438	-16	WT-MW-50	Acetone	Laboratory Control Sample	140 / 138		high
1123438	-16	WT-MW-50	2,2-dichloropropane	Laboratory Control Sample	47	65	low / non-directional
1123438	-16	WT-MW-50	Tetrachydrofuran	Laboratory Control Sample	131 / 132		high
1123438UF	-17	WT-MW-50	No QC Issues				
1123439	-18	WT-MW-50	Acetone	Continuing Calibration Check	>30% Diff		non-directional

# Reasonable Confidence Protocol - Data Quality Assessment Worksheet (DQA)

Laboratory - SDG: Accutest - M85689  
 Project: UTC: Willow Brook & Pond 2009 Quarterly GW Monitoring  
 Commission # 88UT907  
 Date Samples Collected 9/9/2009  
 RCP Certification Form Included: Yes  
 Laboratory Case Narrative Included: Yes

Note 1: Bias High: reported result may be lower, RLs are accepted as reported.  
 Bias Low: reported result may be higher, RLs may be higher

SAMPLE #	Lab #	Location ID	COMPOUND	QC OUTLIER	%R	RPD	BIAS	COMMENTS
1130880	M85689-1	WT-MW-57	Acetone	Laboratory Control Sample	135		high	
			Chloromethane	Laboratory Control Sample	69		low	
			Isopropylbenzene	Laboratory Control Sample	132		high	
			2-Hexanone	Initial Calibration Verification				Quadratic regression used
			Naphthalene	Initial Calibration Verification				Quadratic regression used
			Acetone	Continuing Calibration Check	>30% Diff		non-directional	
			Bromomethane	Continuing Calibration Check	>30% Diff		non-directional	
			Isopropylbenzene	Continuing Calibration Check	>30% Diff		non-directional	
1130880uf	M85689-2	WT-MW-57	No QC Issues					
1130879	M85689-3	WT-MW-47	Acetone	Laboratory Control Sample	135		high	
			Chloromethane	Laboratory Control Sample	69		low	
			Isopropylbenzene	Laboratory Control Sample	132		high	
			2-Hexanone	Initial Calibration Verification				Quadratic regression used
			Naphthalene	Initial Calibration Verification				Quadratic regression used
			Acetone	Continuing Calibration Check	>30% Diff		non-directional	
			Bromomethane	Continuing Calibration Check	>30% Diff		non-directional	
			Isopropylbenzene	Continuing Calibration Check	>30% Diff		non-directional	
1130879uf	M85689-4	WT-MW-47	No QC Issues					
1130877	M85689-5	TRIP BLANK	Acetone	Laboratory Control Sample	135		high	
			Chloromethane	Laboratory Control Sample	69		low	
			Isopropylbenzene	Laboratory Control Sample	132		high	
			2-Hexanone	Initial Calibration Verification				Quadratic regression used
			Naphthalene	Initial Calibration Verification				Quadratic regression used
			Acetone	Continuing Calibration Check	>30% Diff		non-directional	
			Bromomethane	Continuing Calibration Check	>30% Diff		non-directional	
			Isopropylbenzene	Continuing Calibration Check	>30% Diff		non-directional	

## Reasonable Confidence Protocol - Data Quality Assessment Worksheet (DQA)

Laboratory - SDG: Accutest - M85739  
 Project: UTC: Willow Brook & Pond 2009 Quarterly GW Monitoring  
 Commission # 88UT907  
 Date Samples Collected 9/10/2009  
 RCP Certification Form Included: Yes  
 Laboratory Case Narrative Included: Yes

Note 1: Bias High: reported result may be lower, RLs are accepted as reported.  
 Bias Low: reported result may be higher, RLs may be higher

SAMPLE #	Lab #	Location ID	COMPOUND	QC OUTLIER	%R	RPD	BIAS	COMMENTS
1130878	M85739-1	WT-MW-41	Isopropylbenzene 2,2-dichloropropane Dichlorodifluoromethane Isopropylbenzene	Laboratory Control Sample Initial Calibration Verification Initial Calibration Verification Continuing Calibration Check	145  >35% Diff >30% Diff		high  non-directional non-directional	Quadratic regression used
1130878uf	M85739-2	WT-MW-41	No QC Issues					
1130881	M85739-3	WT-MW-44	Isopropylbenzene 2,2-dichloropropane Dichlorodifluoromethane Isopropylbenzene	Laboratory Control Sample Initial Calibration Verification Initial Calibration Verification Continuing Calibration Check	145  >35% Diff >30% Diff		high  non-directional non-directional	Quadratic regression used
1130881uf	M85739-4	WT-MW-44	No QC Issues					
1130882	M85739-5	WT-MW-46	Isopropylbenzene 2,2-dichloropropane Dichlorodifluoromethane Isopropylbenzene	Laboratory Control Sample Initial Calibration Verification Initial Calibration Verification Continuing Calibration Check	145  >35% Diff >30% Diff		high  non-directional non-directional	Quadratic regression used
1130882uf	M85739-6	WT-MW-46	No QC Issues					
1130883	M85739-7	WT-MW-48	Isopropylbenzene 2,2-dichloropropane Dichlorodifluoromethane Isopropylbenzene	Laboratory Control Sample Initial Calibration Verification Initial Calibration Verification Continuing Calibration Check	145  >35% Diff >30% Diff		high  non-directional non-directional	Quadratic regression used
1130883uf	M85739-8	WT-MW-48	No QC Issues					
1130885	M85739-9	WT-MW-42	Isopropylbenzene 2,2-dichloropropane Dichlorodifluoromethane Isopropylbenzene	Laboratory Control Sample Initial Calibration Verification Initial Calibration Verification Continuing Calibration Check	145  >35% Diff >30% Diff		high  non-directional non-directional	Quadratic regression used
1130885uf	M85739-10	WT-MW-42	No QC Issues					

1130886	M85739-11	WT-MW-43	Isopropylbenzene 2,2-dichloropropane Dichlorodifluoromethane Isopropylbenzene	Laboratory Control Sample Initial Calibration Verification Initial Calibration Verification Continuing Calibration Check	145  >35% Diff >30% Diff	high  non-directional non-directional	Quadratic regression used
1130886uf	M85739-12	WT-MW-43	No QC Issues				
1130887	M85739-13	WT-MW-49	Isopropylbenzene 2,2-dichloropropane Dichlorodifluoromethane Isopropylbenzene	Laboratory Control Sample Initial Calibration Verification Initial Calibration Verification Continuing Calibration Check	145  >35% Diff >30% Diff	high  non-directional non-directional	Quadratic regression used
1130887uf	M85739-14	WT-MW-49	No QC Issues				
1130888	M85739-15	WT-MW-45	Isopropylbenzene 2,2-dichloropropane Dichlorodifluoromethane Isopropylbenzene	Laboratory Control Sample Initial Calibration Verification Initial Calibration Verification Continuing Calibration Check	145  >35% Diff >30% Diff	high  non-directional non-directional	Quadratic regression used
1130888uf	M85739-16	WT-MW-45	No QC Issues				
1130889	M85739-17	TRIP BLANK	Isopropylbenzene 2,2-dichloropropane Dichlorodifluoromethane Isopropylbenzene	Laboratory Control Sample Initial Calibration Verification Initial Calibration Verification Continuing Calibration Check	145  >35% Diff >30% Diff	high  non-directional non-directional	Quadratic regression used

## Reasonable Confidence Protocol - Data Quality Assessment Worksheet (DQA)

Laboratory - SDG: Accutest - M85761  
 Project: UTC: Willow Brook & Pond 2009 Quarterly GW Monitoring  
 Commission #: 88UT907  
 Date Samples Collected: 9/11/2009  
 RCP Certification Form Included: Yes  
 Laboratory Case Narrative Included: Yes

Note 1: Bias High: reported result may be lower, RLs are accepted as reported.  
 Bias Low: reported result may be higher, RLs may be higher

SAMPLE #	Lab #	Location ID	COMPOUND	QC OUTLIER	%R	RPD	BIAS	COMMENTS
1130891	M85761-1	WT-MW-59	1,2-Dibromo-3-chloropropane	Laboratory Control Sample	131		high	Quadratic regression used
			Isopropylbenzene	Laboratory Control Sample	147 / 153		high	
			Naphthalene	Laboratory Control Sample	134 / 138		high	
			1,1,2,2-Tetrachloroethane	Laboratory Control Sample	131 / 136		high	
			1,2,4-Trichlorobenzene	Laboratory Control Sample	131		high	
			2,2-dichloropropane	Initial Calibration Verification				
			Dichlorodifluoromethane	Initial Calibration Verification	>35% Diff		non-directional	
			Acetone	Continuing Calibration Check	>30% Diff		non-directional	
1130891uf	M85761-2	WT-MW-59	No QC Issues					
1130890	M85761-3	WT-MW-19SR	1,2-Dibromo-3-chloropropane	Laboratory Control Sample	131		high	Quadratic regression used
			Isopropylbenzene	Laboratory Control Sample	147 / 153		high	
			Naphthalene	Laboratory Control Sample	134 / 138		high	
			1,1,2,2-Tetrachloroethane	Laboratory Control Sample	131 / 136		high	
			1,2,4-Trichlorobenzene	Laboratory Control Sample	131		high	
			2,2-dichloropropane	Initial Calibration Verification				
			Dichlorodifluoromethane	Initial Calibration Verification	>35% Diff		non-directional	
			Acetone	Continuing Calibration Check	>30% Diff		non-directional	
1130890uf	M85761-4	WT-MW-19SR	No QC Issues					
1130897	M85761-5	WT-MW-40	1,2-Dibromo-3-chloropropane	Laboratory Control Sample	131		high	Quadratic regression used
			Isopropylbenzene	Laboratory Control Sample	147 / 153		high	
			Naphthalene	Laboratory Control Sample	134 / 138		high	
			1,1,2,2-Tetrachloroethane	Laboratory Control Sample	131 / 136		high	
			1,2,4-Trichlorobenzene	Laboratory Control Sample	131		high	
			2,2-dichloropropane	Initial Calibration Verification				
			Dichlorodifluoromethane	Initial Calibration Verification	>35% Diff		non-directional	
			Acetone	Continuing Calibration Check	>30% Diff		non-directional	
1130897uf	M85761-6	WT-MW-40	No QC Issues					
1130895	M85761-7	WT-MW-50	1,2-Dibromo-3-chloropropane	Laboratory Control Sample	131		high	
			Isopropylbenzene	Laboratory Control Sample	147 / 153		high	

			Naphthalene	Laboratory Control Sample	134 / 138	high	
			1,1,2,2-Tetrachloroethane	Laboratory Control Sample	131 / 136	high	
			1,2,4-Trichlorobenzene	Laboratory Control Sample	131	high	
			2,2-dichloropropane	Initial Calibration Verification			Quadratic regression used
			Dichlorodifluoromethane	Initial Calibration Verification	>35% Diff	non-directional	
			Acetone	Continuing Calibration Check	>30% Diff	non-directional	
1130949	M85761-8	TRIP BLANK	1,2,3-Trichlorobenzene	Laboratory Control Sample	158 / 137	high	
			Acetone	Laboratory Control Sample	150 / 149	high	
			Naphthalene	Laboratory Control Sample	149 / 132	high	
			Chloromethane	Initial Calibration Verification			Quadratic regression used
			Acetone	Continuing Calibration Check	>30% Diff	non-directional	
			2-Butanone	Continuing Calibration Check	>30% Diff	non-directional	
			2-Hexanone	Continuing Calibration Check	>30% Diff	non-directional	
1130950	M85761-9	EQUIPMENT	1,2,3-Trichlorobenzene	Laboratory Control Sample	158 / 137	high	
			Acetone	Laboratory Control Sample	150 / 149	high	
			Naphthalene	Laboratory Control Sample	149 / 132	high	
			Chloromethane	Initial Calibration Verification			Quadratic regression used
			Acetone	Continuing Calibration Check	>30% Diff	non-directional	
			2-Butanone	Continuing Calibration Check	>30% Diff	non-directional	
			2-Hexanone	Continuing Calibration Check	>30% Diff	non-directional	
1130950uf	M85761-10	EQUIPMENT	No QC Issues				
1130894	M85761-11	PERFORMANCE	No QC Issues				
1130893	M85761-12	PERFORMANCE	1,2,3-Trichlorobenzene	Laboratory Control Sample	158 / 137	high	
			Acetone	Laboratory Control Sample	150 / 149	high	
			Naphthalene	Laboratory Control Sample	149 / 132	high	
			Chloromethane	Initial Calibration Verification			Quadratic regression used
			Acetone	Continuing Calibration Check	>30% Diff	non-directional	
			2-Butanone	Continuing Calibration Check	>30% Diff	non-directional	
			2-Hexanone	Continuing Calibration Check	>30% Diff	non-directional	
1130893uf	M85761-13	PERFORMANCE	No QC Issues				
1130892	M85761-14	WT-MW-58	1,2,3-Trichlorobenzene	Laboratory Control Sample	158 / 137	high	
			Acetone	Laboratory Control Sample	150 / 149	high	
			Naphthalene	Laboratory Control Sample	149 / 132	high	
			Chloromethane	Initial Calibration Verification			Quadratic regression used
			Acetone	Continuing Calibration Check	>30% Diff	non-directional	
			2-Butanone	Continuing Calibration Check	>30% Diff	non-directional	
			2-Hexanone	Continuing Calibration Check	>30% Diff	non-directional	
1130892uf	M85761-15	WT-MW-58	No QC Issues				
1130895uf	M85761-16	WT-MW-50	No QC Issues				
1130896	M85761-17	WT-MW-50	1,2,3-Trichlorobenzene	Laboratory Control Sample	158 / 137	high	



1130896uf	M85761-18	WT-MW-50	Acetone	Laboratory Control Sample	150 / 149	high	Quadratic regression used
			Naphthalene	Laboratory Control Sample	149 / 132	high	
			Chloromethane	Initial Calibration Verification			
			Acetone	Continuing Calibration Check	>30% Diff	non-directional	
			2-Butanone	Continuing Calibration Check	>30% Diff	non-directional	
			2-Hexanone	Continuing Calibration Check	>30% Diff	non-directional	
			No QC Issues				

## Reasonable Confidence Protocol - Data Quality Assessment Worksheet (DQA)

Laboratory - SDG: Accutest - M87915  
 Project: UTC: Willow Brook & Pond 2009 Quarterly GW Monitoring  
 Commission #: 88UT907  
 Date Samples Collected: 12/8/2009  
 RCP Certification Form Included: Yes  
 Laboratory Case Narrative Included: Yes

Note 1: Bias High: reported result may be lower, RLs are accepted as reported.  
 Bias Low: reported result may be higher, RLs may be higher

SAMPLE #	Lab #	Location ID	COMPOUND	QC OUTLIER	%R	RPD	BIAS	COMMENTS
1136013	-1	WT-MW-50	Chloroethane	Laboratory Control Sample	67		low	
			Chloromethane	Laboratory Control Sample	64 / 66		low	
			2-Hexanone	Laboratory Control Sample	134		high	
			Acetone	MS/MSD	47 / 45		low	
			Acrylonitrile	MS/MSD	67 / 68		low	
			2-Butanone	MS/MSD	53 / 55		low	
			Carbon Disulfide	MS/MSD	68 / 69		low	
			Chloroethane	MS/MSD	69 / 67		low	
			Chloromethane	MS/MSD	64 / 62		low	
			Tetrahydrofuran	MS/MSD	66		low	
			Acetone	Initial Calibration Standard				Quadratic regression used
			1,2,3-Trichloropropane	Initial Calibration Standard				Quadratic regression used
			1,2,4-Trichlorobenzene	Initial Calibration Standard				Quadratic regression used
			1,2,3-Trichlorobenzene	Initial Calibration Standard				Quadratic regression used
			Naphthalene	Initial Calibration Standard				Quadratic regression used
			Acetone	Initial Calibration Verification	>35% Diff		non-directional	
			Dichlorodifluoromethane	Continuing Calibration Check	>30% Diff		non-directional	
			Acetone	Continuing Calibration Check	>30% Diff		non-directional	
			2-Hexanone	Continuing Calibration Check	>30% Diff		non-directional	
1136013uf	-2	WT-MW-50	No QC Issues					
1136028	-3	WT-MW-50	Acetone	Laboratory Control Sample	151 / 147		high	
			2-Butanone	Laboratory Control Sample	131		high	
			2-Hexanone	Laboratory Control Sample	146 / 137		high	
			Bromomethane	Initial Calibration Standard				Quadratic regression used
			Freon-113	Initial Calibration Standard				Quadratic regression used
			Acetone	Initial Calibration Standard				Quadratic regression used
			2-Hexanone	Initial Calibration Standard				Quadratic regression used
			1,2-Dibromo-3-chloropropane	Initial Calibration Standard				Quadratic regression used
			1,2,4-Trichlorobenzene	Initial Calibration Standard				Quadratic regression used
			Naphthalene	Initial Calibration Standard				Quadratic regression used
			1,2,3-Trichlorobenzene	Initial Calibration Standard				Quadratic regression used
			Acetone	Continuing Calibration Check	>30% Diff		non-directional	
1136028uf	-4	WT-MW-50	No QC Issues					
1136014	-5	WT-MW-45	Chloroethane	Laboratory Control Sample	67		low	

			Chloromethane	Laboratory Control Sample	64 / 66	low	
			2-Hexanone	Laboratory Control Sample	134	high	
			Acetone	Initial Calibration Standard			Quadratic regression used
			1,2,3-Trichloropropane	Initial Calibration Standard			Quadratic regression used
			1,2,4-Trichlorobenzene	Initial Calibration Standard			Quadratic regression used
			1,2,3-Trichlorobenzene	Initial Calibration Standard			Quadratic regression used
			Naphthalene	Initial Calibration Standard			Quadratic regression used
			Acetone	Initial Calibration Verification	>35% Diff	non-directional	
			Dichlorodifluoromethane	Continuing Calibration Check	>30% Diff	non-directional	
			Acetone	Continuing Calibration Check	>30% Diff	non-directional	
			2-Hexanone	Continuing Calibration Check	>30% Diff	non-directional	
1136014uf	-6	WT-MW-45	No QC Issues				
1136011	-7	WT-MW-44	Chloroethane	Laboratory Control Sample	67	low	
			Chloromethane	Laboratory Control Sample	64 / 66	low	
			2-Hexanone	Laboratory Control Sample	134	high	
			Acetone	Initial Calibration Standard			Quadratic regression used
			1,2,3-Trichloropropane	Initial Calibration Standard			Quadratic regression used
			1,2,4-Trichlorobenzene	Initial Calibration Standard			Quadratic regression used
			1,2,3-Trichlorobenzene	Initial Calibration Standard			Quadratic regression used
			Naphthalene	Initial Calibration Standard			Quadratic regression used
			Acetone	Initial Calibration Verification	>35% Diff	non-directional	
			Dichlorodifluoromethane	Continuing Calibration Check	>30% Diff	non-directional	
			Acetone	Continuing Calibration Check	>30% Diff	non-directional	
			2-Hexanone	Continuing Calibration Check	>30% Diff	non-directional	
1136011uf	-8	WT-MW-44	No QC Issues				
1136012	-9	WT-MW-40	Chloroethane	Laboratory Control Sample	67	low	
			Chloromethane	Laboratory Control Sample	64 / 66	low	
			2-Hexanone	Laboratory Control Sample	134	high	
			Acetone	Initial Calibration Standard			Quadratic regression used
			1,2,3-Trichloropropane	Initial Calibration Standard			Quadratic regression used
			1,2,4-Trichlorobenzene	Initial Calibration Standard			Quadratic regression used
			1,2,3-Trichlorobenzene	Initial Calibration Standard			Quadratic regression used
			Naphthalene	Initial Calibration Standard			Quadratic regression used
			Acetone	Initial Calibration Verification	>35% Diff	non-directional	
			Dichlorodifluoromethane	Continuing Calibration Check	>30% Diff	non-directional	
			Acetone	Continuing Calibration Check	>30% Diff	non-directional	
			2-Hexanone	Continuing Calibration Check	>30% Diff	non-directional	
1136012uf	-10	WT-MW-40	No QC Issues				
1136010	-11	WT-MW-57	Chloroethane	Laboratory Control Sample	67	low	
			Chloromethane	Laboratory Control Sample	64 / 66	low	
			2-Hexanone	Laboratory Control Sample	134	high	
			Acetone	Initial Calibration Standard			Quadratic regression used
			1,2,3-Trichloropropane	Initial Calibration Standard			Quadratic regression used
			1,2,4-Trichlorobenzene	Initial Calibration Standard			Quadratic regression used
			1,2,3-Trichlorobenzene	Initial Calibration Standard			Quadratic regression used
			Naphthalene	Initial Calibration Standard			Quadratic regression used
			Acetone	Initial Calibration Verification	>35% Diff	non-directional	

			Dichlorodifluoromethane	Continuing Calibration Check	>30% Diff	non-directional	
			Acetone	Continuing Calibration Check	>30% Diff	non-directional	
			2-Hexanone	Continuing Calibration Check	>30% Diff	non-directional	
1136010uf	-12	WT-MW-57	No QC Issues				
1136007	-13	WT-MW-43	Chloroethane	Laboratory Control Sample	67	low	
			Chloromethane	Laboratory Control Sample	64 / 66	low	
			2-Hexanone	Laboratory Control Sample	134	high	
			Acetone	Initial Calibration Standard			Quadratic regression used
			1,2,3-Trichloropropane	Initial Calibration Standard			Quadratic regression used
			1,2,4-Trichlorobenzene	Initial Calibration Standard			Quadratic regression used
			1,2,3-Trichlorobenzene	Initial Calibration Standard			Quadratic regression used
			Naphthalene	Initial Calibration Standard			Quadratic regression used
			Acetone	Initial Calibration Verification	>35% Diff	non-directional	
			Dichlorodifluoromethane	Continuing Calibration Check	>30% Diff	non-directional	
			Acetone	Continuing Calibration Check	>30% Diff	non-directional	
			2-Hexanone	Continuing Calibration Check	>30% Diff	non-directional	
1136007uf	-14	WT-MW-43	No QC Issues				
1136008	-15	WT-MW-42	Chloroethane	Laboratory Control Sample	67	low	
			Chloromethane	Laboratory Control Sample	64 / 66	low	
			2-Hexanone	Laboratory Control Sample	134	high	
			Acetone	Initial Calibration Standard			Quadratic regression used
			1,2,3-Trichloropropane	Initial Calibration Standard			Quadratic regression used
			1,2,4-Trichlorobenzene	Initial Calibration Standard			Quadratic regression used
			1,2,3-Trichlorobenzene	Initial Calibration Standard			Quadratic regression used
			Naphthalene	Initial Calibration Standard			Quadratic regression used
			Acetone	Initial Calibration Verification	>35% Diff	non-directional	
			Dichlorodifluoromethane	Continuing Calibration Check	>30% Diff	non-directional	
			Acetone	Continuing Calibration Check	>30% Diff	non-directional	
			2-Hexanone	Continuing Calibration Check	>30% Diff	non-directional	
1136008uf	-16	WT-MW-42	No QC Issues				
1136009	-17	WT-MW-41	Chloroethane	Laboratory Control Sample	67	low	
			Chloromethane	Laboratory Control Sample	64 / 66	low	
			2-Hexanone	Laboratory Control Sample	134	high	
			Acetone	Initial Calibration Standard			Quadratic regression used
			1,2,3-Trichloropropane	Initial Calibration Standard			Quadratic regression used
			1,2,4-Trichlorobenzene	Initial Calibration Standard			Quadratic regression used
			1,2,3-Trichlorobenzene	Initial Calibration Standard			Quadratic regression used
			Naphthalene	Initial Calibration Standard			Quadratic regression used
			Acetone	Initial Calibration Verification	>35% Diff	non-directional	
			Dichlorodifluoromethane	Continuing Calibration Check	>30% Diff	non-directional	
			Acetone	Continuing Calibration Check	>30% Diff	non-directional	
			2-Hexanone	Continuing Calibration Check	>30% Diff	non-directional	
1136009uf	-18	WT-MW-41	No QC Issues				
1136017	-19	WT-MW-47	Chloroethane	Laboratory Control Sample	67	low	
			Chloromethane	Laboratory Control Sample	64 / 66	low	
			2-Hexanone	Laboratory Control Sample	134	high	
			Acetone	Initial Calibration Standard			Quadratic regression used

			1,2,3-Trichloropropane	Initial Calibration Standard			Quadratic regression used
			1,2,4-Trichlorobenzene	Initial Calibration Standard			Quadratic regression used
			1,2,3-Trichlorobenzene	Initial Calibration Standard			Quadratic regression used
			Naphthalene	Initial Calibration Standard			Quadratic regression used
			Acetone	Initial Calibration Verification	>35% Diff	non-directional	
			Dichlorodifluoromethane	Continuing Calibration Check	>30% Diff	non-directional	
			Acetone	Continuing Calibration Check	>30% Diff	non-directional	
			2-Hexanone	Continuing Calibration Check	>30% Diff	non-directional	
1136015	-20	WT-MW-49	Chloroethane	Laboratory Control Sample	67	low	
			Chloromethane	Laboratory Control Sample	64 / 66	low	
			2-Hexanone	Laboratory Control Sample	134	high	
			Acetone	Initial Calibration Standard			Quadratic regression used
			1,2,3-Trichloropropane	Initial Calibration Standard			Quadratic regression used
			1,2,4-Trichlorobenzene	Initial Calibration Standard			Quadratic regression used
			1,2,3-Trichlorobenzene	Initial Calibration Standard			Quadratic regression used
			Naphthalene	Initial Calibration Standard			Quadratic regression used
			Acetone	Initial Calibration Verification	>35% Diff	non-directional	
			Dichlorodifluoromethane	Continuing Calibration Check	>30% Diff	non-directional	
			Acetone	Continuing Calibration Check	>30% Diff	non-directional	
			2-Hexanone	Continuing Calibration Check	>30% Diff	non-directional	
1136015uf	-21	WT-MW-49	No QC Issues				
1136016	-22	WT-MW-48	Chloroethane	Laboratory Control Sample	67	low	
			Chloromethane	Laboratory Control Sample	64 / 66	low	
			2-Hexanone	Laboratory Control Sample	134	high	
			Acetone	Initial Calibration Standard			Quadratic regression used
			1,2,3-Trichloropropane	Initial Calibration Standard			Quadratic regression used
			1,2,4-Trichlorobenzene	Initial Calibration Standard			Quadratic regression used
			1,2,3-Trichlorobenzene	Initial Calibration Standard			Quadratic regression used
			Naphthalene	Initial Calibration Standard			Quadratic regression used
			Acetone	Initial Calibration Verification	>35% Diff	non-directional	
			Dichlorodifluoromethane	Continuing Calibration Check	>30% Diff	non-directional	
			Acetone	Continuing Calibration Check	>30% Diff	non-directional	
			2-Hexanone	Continuing Calibration Check	>30% Diff	non-directional	
1136016uf	-23	WT-MW-48	No QC Issues				
1136027	-24	EQUIPMENT	Chloroethane	Laboratory Control Sample	67	low	
			Chloromethane	Laboratory Control Sample	64 / 66	low	
			2-Hexanone	Laboratory Control Sample	134	high	
			Acetone	Initial Calibration Standard			Quadratic regression used
			1,2,3-Trichloropropane	Initial Calibration Standard			Quadratic regression used
			1,2,4-Trichlorobenzene	Initial Calibration Standard			Quadratic regression used
			1,2,3-Trichlorobenzene	Initial Calibration Standard			Quadratic regression used
			Naphthalene	Initial Calibration Standard			Quadratic regression used
			Acetone	Initial Calibration Verification	>35% Diff	non-directional	
			Dichlorodifluoromethane	Continuing Calibration Check	>30% Diff	non-directional	
			Acetone	Continuing Calibration Check	>30% Diff	non-directional	
			2-Hexanone	Continuing Calibration Check	>30% Diff	non-directional	
1136027uf	-25	EQUIPMENT	No QC Issues				

1136026	-26	TRIP BLANK	Chloroethane	Laboratory Control Sample	67	low	
			Chloromethane	Laboratory Control Sample	64 / 66	low	
			2-Hexanone	Laboratory Control Sample	134	high	
			Acetone	Initial Calibration Standard			Quadratic regression used
			1,2,3-Trichloropropane	Initial Calibration Standard			Quadratic regression used
			1,2,4-Trichlorobenzene	Initial Calibration Standard			Quadratic regression used
			1,2,3-Trichlorobenzene	Initial Calibration Standard			Quadratic regression used
			Naphthalene	Initial Calibration Standard			Quadratic regression used
			Acetone	Initial Calibration Verification	>35% Diff	non-directional	
			Dichlorodifluoromethane	Continuing Calibration Check	>30% Diff	non-directional	
			Acetone	Continuing Calibration Check	>30% Diff	non-directional	
			2-Hexanone	Continuing Calibration Check	>30% Diff	non-directional	
			No QC Issues				
1136017uf	-27	WT-MW-47	No QC Issues				

## Reasonable Confidence Protocol - Data Quality Assessment Worksheet (DQA)

Laboratory - SDG: Accutest - M87994  
 Project: UTC: Willow Brook & Pond 2009 Quarterly GW Monitoring  
 Commission #: 88UT907  
 Date Samples Collected: 12/9/2009  
 RCP Certification Form Included: Yes  
 Laboratory Case Narrative Included: Yes

Note 1: Bias High: reported result may be lower, RLs are accepted as reported.  
 Bias Low: reported result may be higher, RLs may be higher

SAMPLE #	Lab #	Location ID	COMPOUND	QC OUTLIER	%R	RPD	BIAS	COMMENTS
1136019	-1	WT-MW-46	Dichlorodifluoromethane	Laboratory Control Sample	61 / 61		low	
			Tetrachloroethylene	Laboratory Control Sample	131		high	
1136019uf	-2	WT-MW-46	No QC Issues					
1136020	-3	WT-MW-58	Dichlorodifluoromethane	Laboratory Control Sample	61 / 61		low	
			Tetrachloroethylene	Laboratory Control Sample	131		high	
1136020uf	-4	WT-MW-58	No QC Issues					
1136021	-5	WT-MW-59	Dichlorodifluoromethane	Laboratory Control Sample	61 / 61		low	
			Tetrachloroethylene	Laboratory Control Sample	131		high	
1136021uf	-6	WT-MW-59	No QC Issues					
1136025	-7	TRIP BLANK	Dichlorodifluoromethane	Laboratory Control Sample	61 / 61		low	
			Tetrachloroethylene	Laboratory Control Sample	131		high	
1136024	-8	PE Sample	Dichlorodifluoromethane	Laboratory Control Sample	61 / 61		low	
			Tetrachloroethylene	Laboratory Control Sample	131		high	

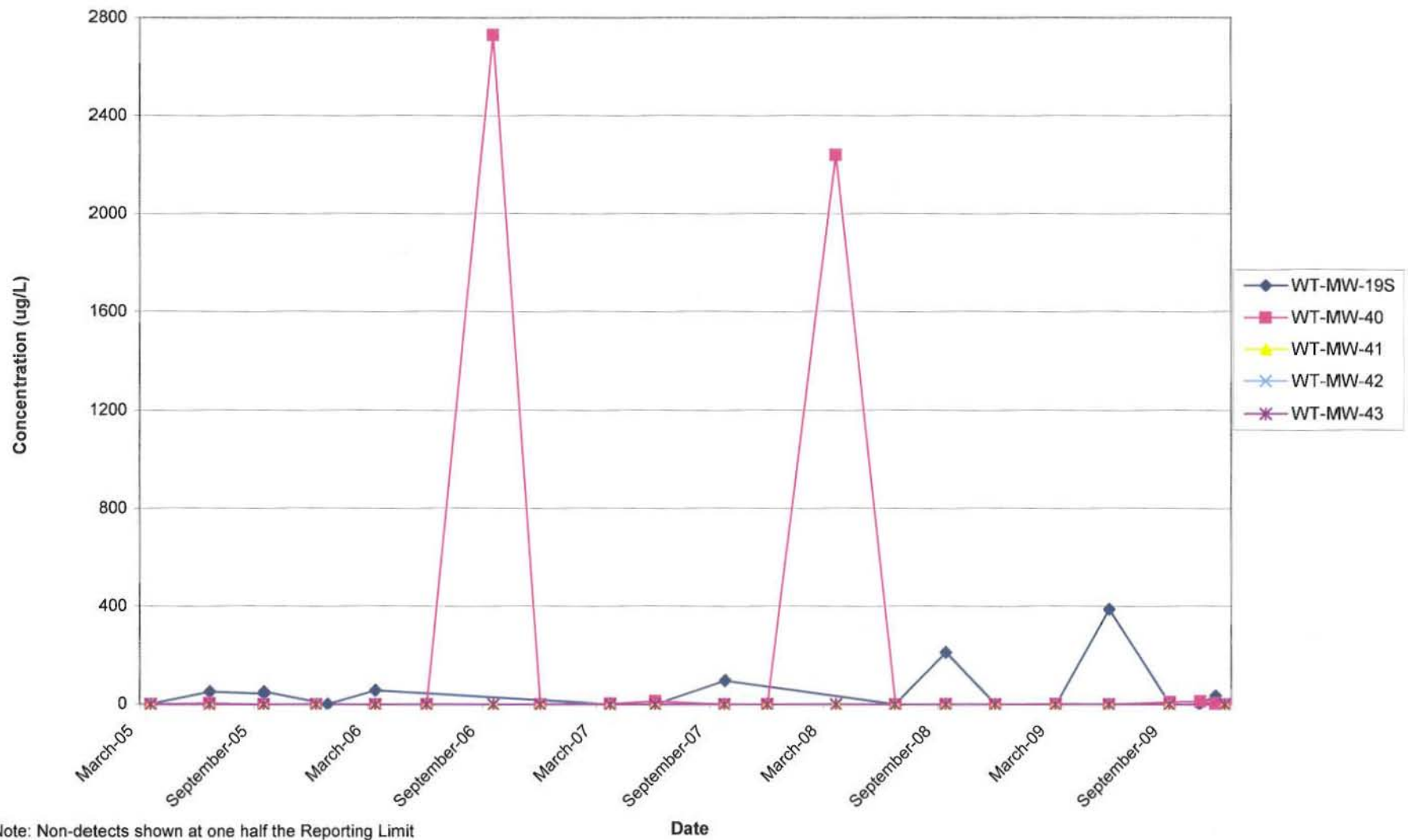
**Appendix D**

**Select Constituent Concentration Graphs**

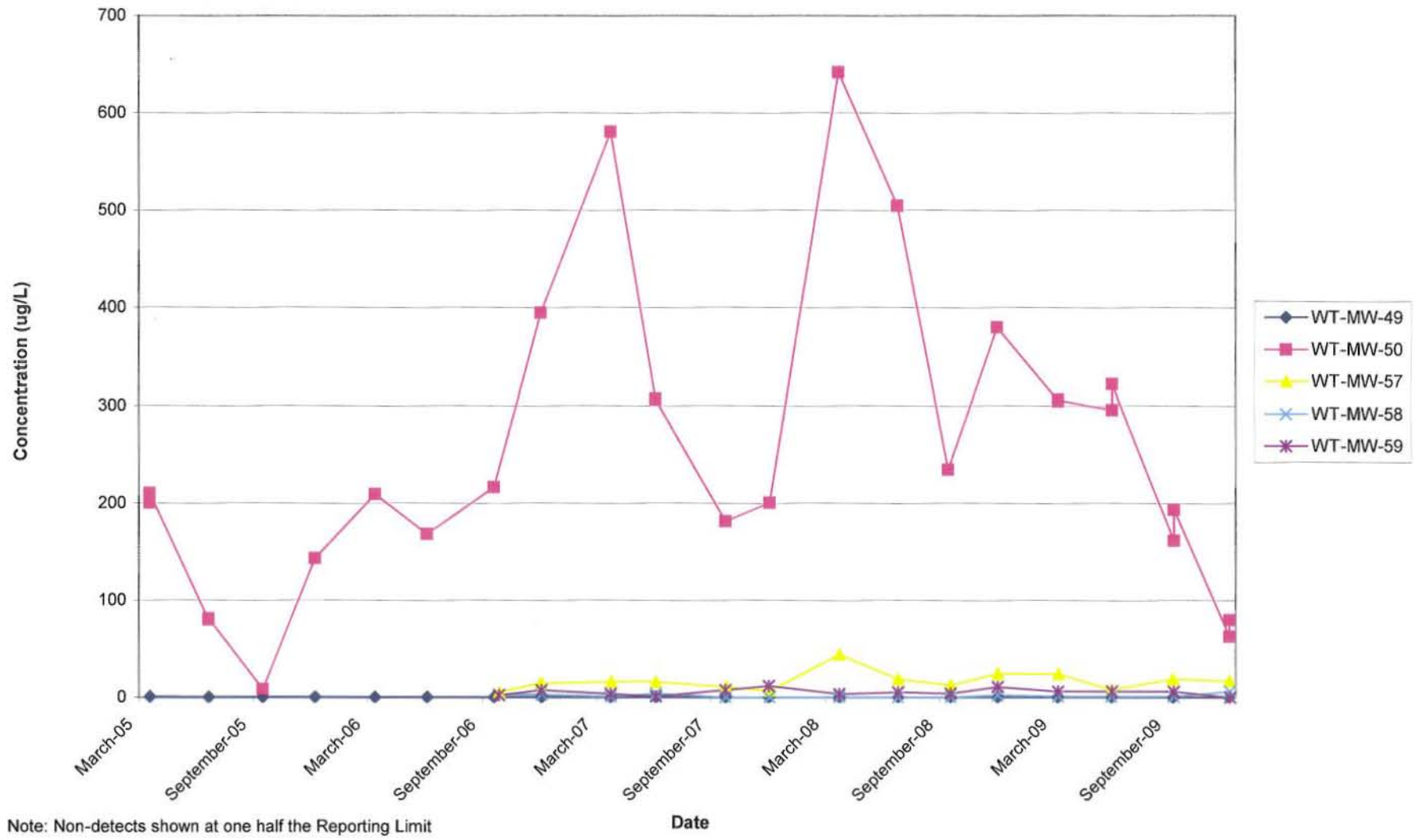




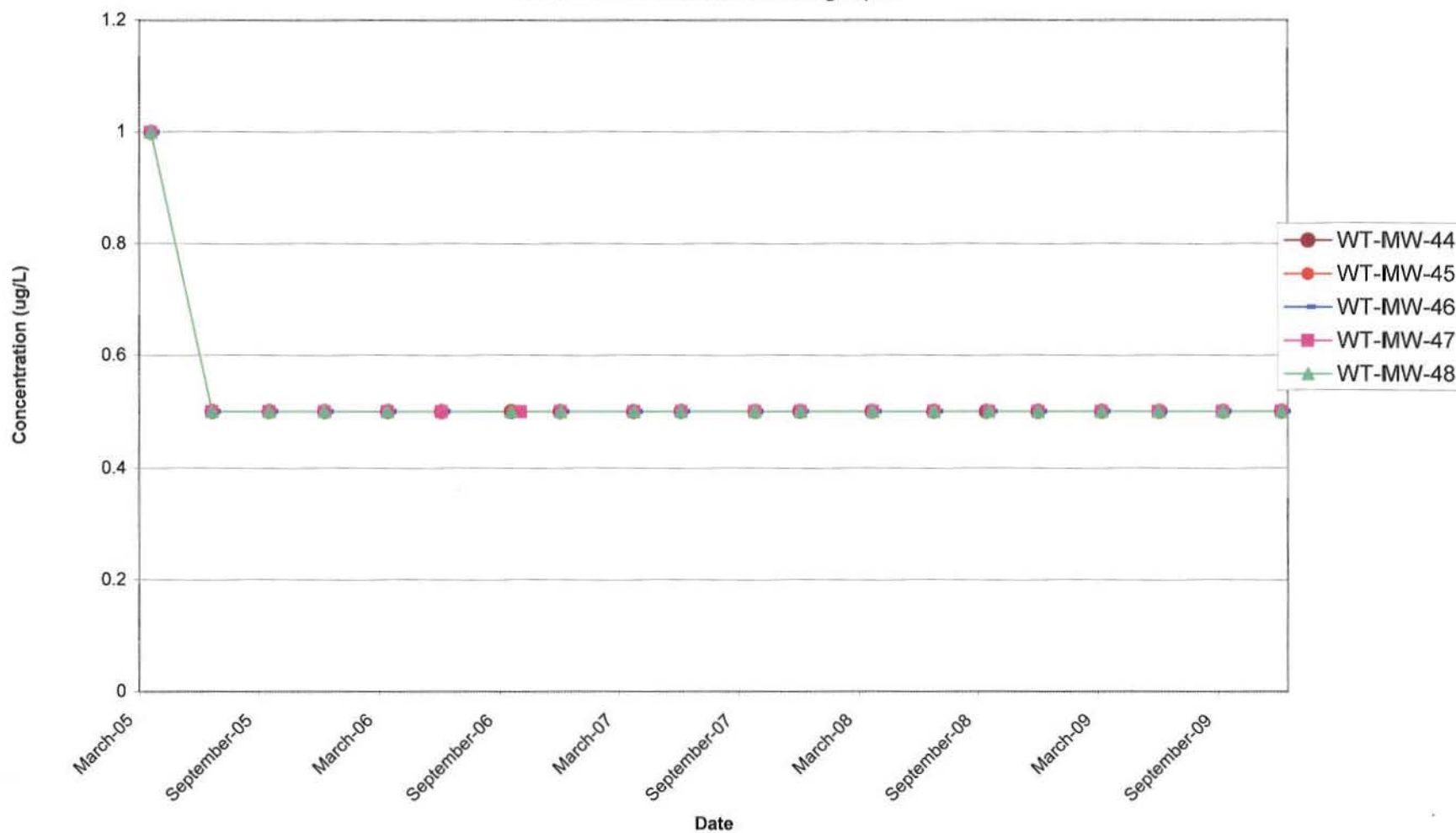
Trichloroethylene (TCE)  
Pratt & Whitney, East Harford, Connecticut: Willow Brook and Willow Brook Pond  
2009 Annual Groundwater Monitoring Report



**Trichloroethylene (TCE)**  
**Pratt & Whitney, East Hartford, Connecticut: Willow Brook and Willow Brook Pond**  
**2009 Annual Groundwater Monitoring Report**

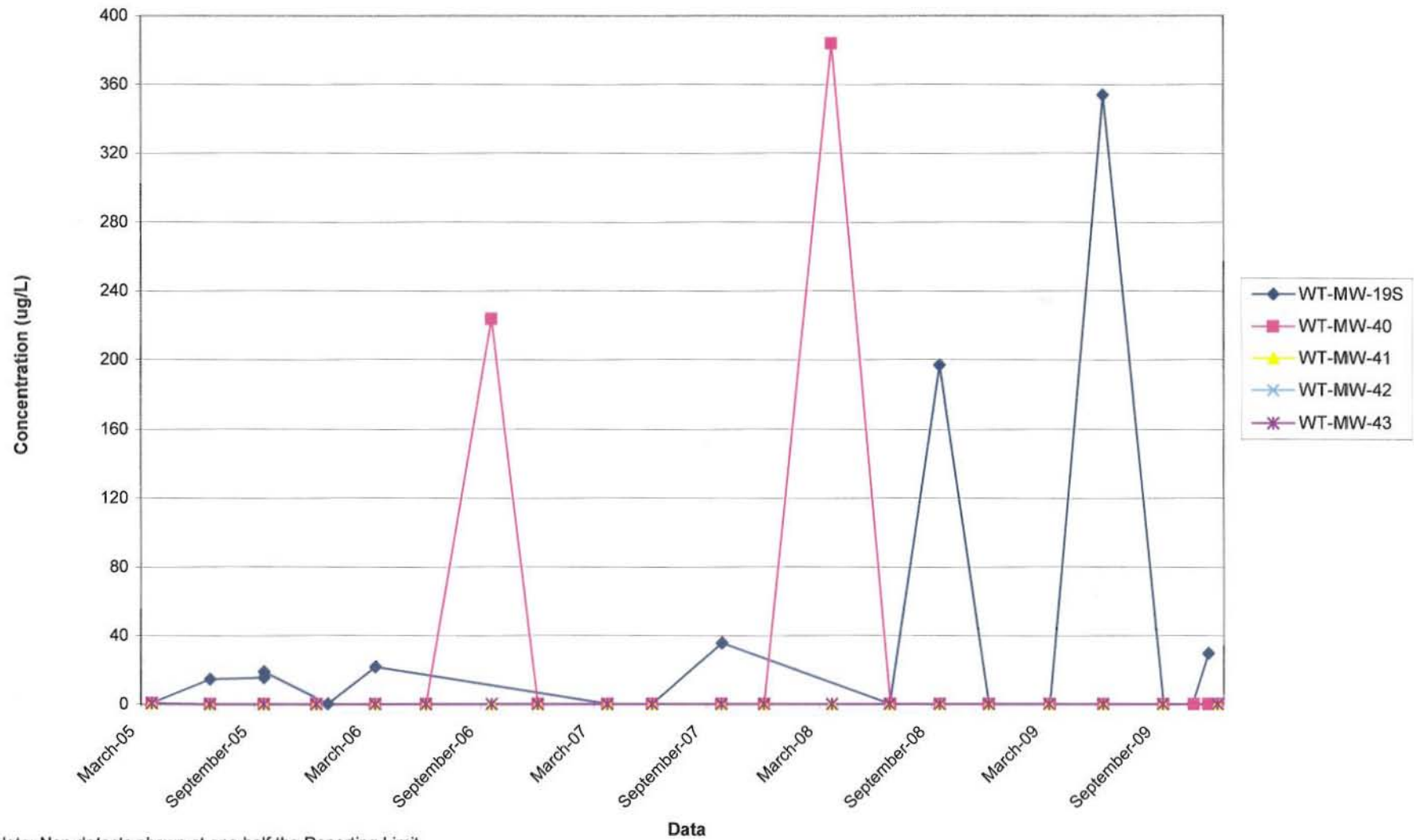


Trichloroethylene (TCE)  
Pratt & Whitney, East Hartford, Connecticut: Willow Brook and Willow Brook Pond  
2009 Annual Groundwater Monitoring Report

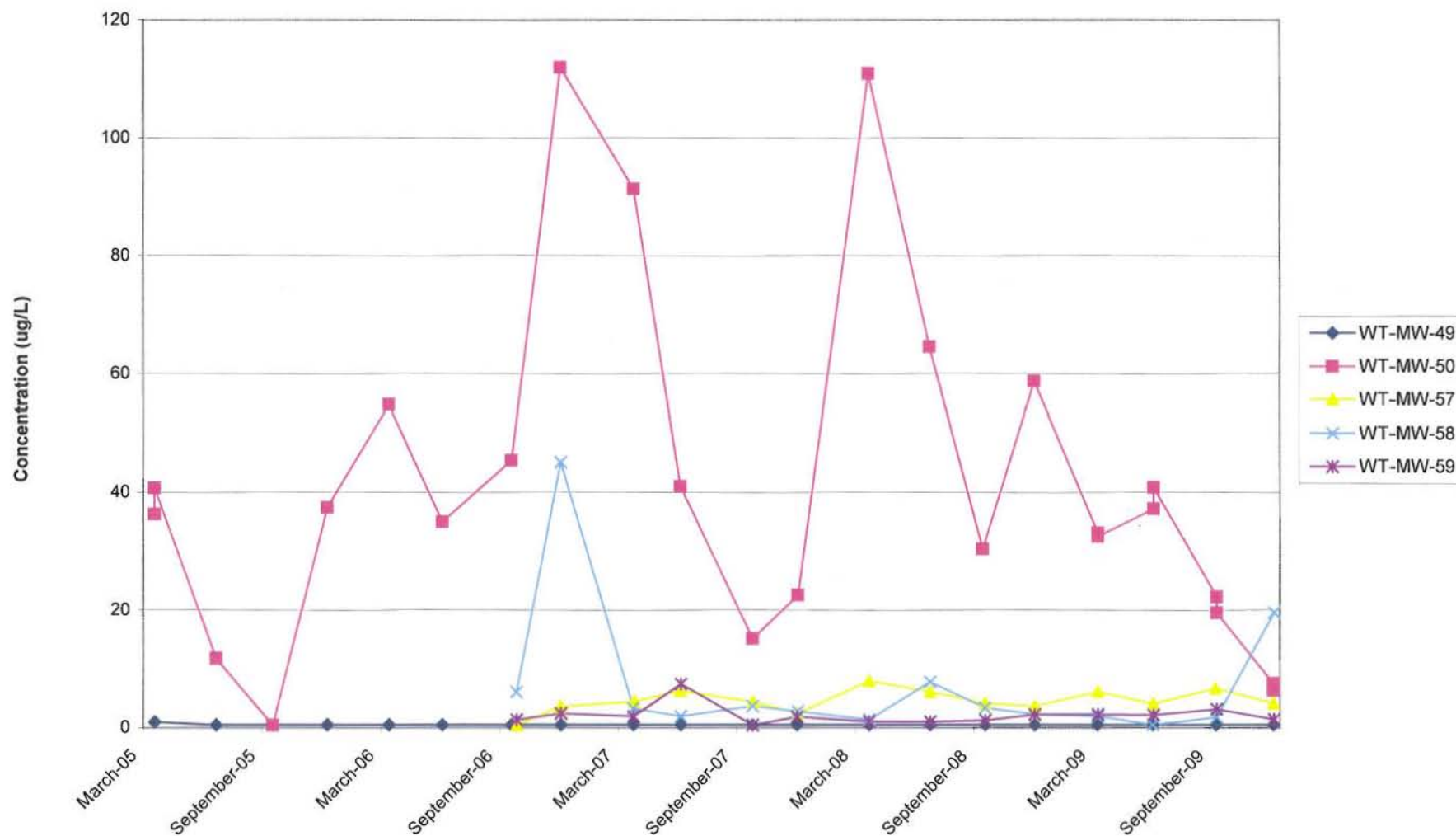


Note: Non-detects shown at one half the Reporting Limit

**Tetrachloroethylene (PCE)**  
**Pratt & Whitney, East Harford, Connecticut: Willow Brook and Willow Brook Pond**  
**2009 Annual Groundwater Monitoring Report**

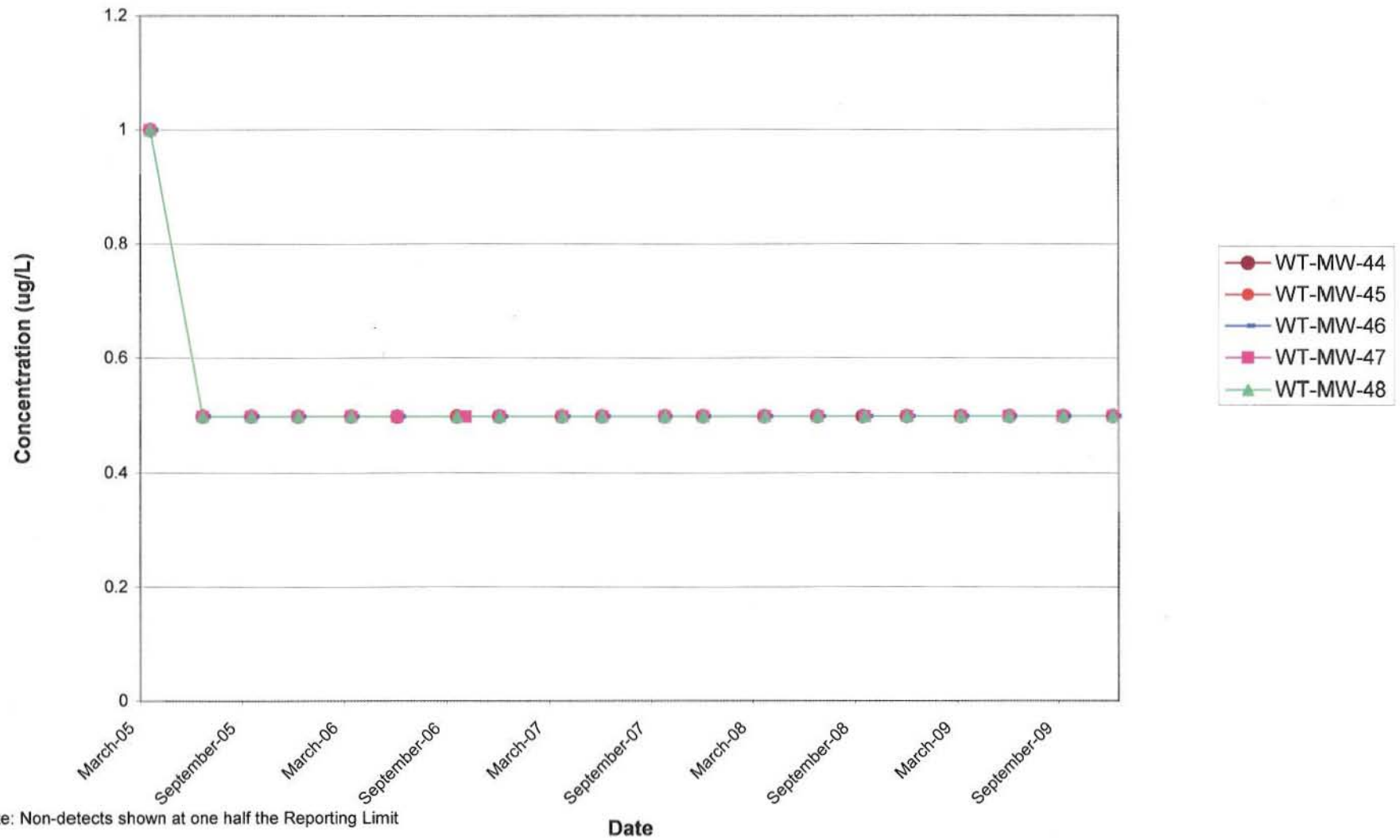


**Tetrachloroethylene (PCE)**  
**Pratt & Whitney, East Hartford, Connecticut: Willow Brook and Willow Brook Pond**  
**2009 Annual Groundwater Monitoring Report**

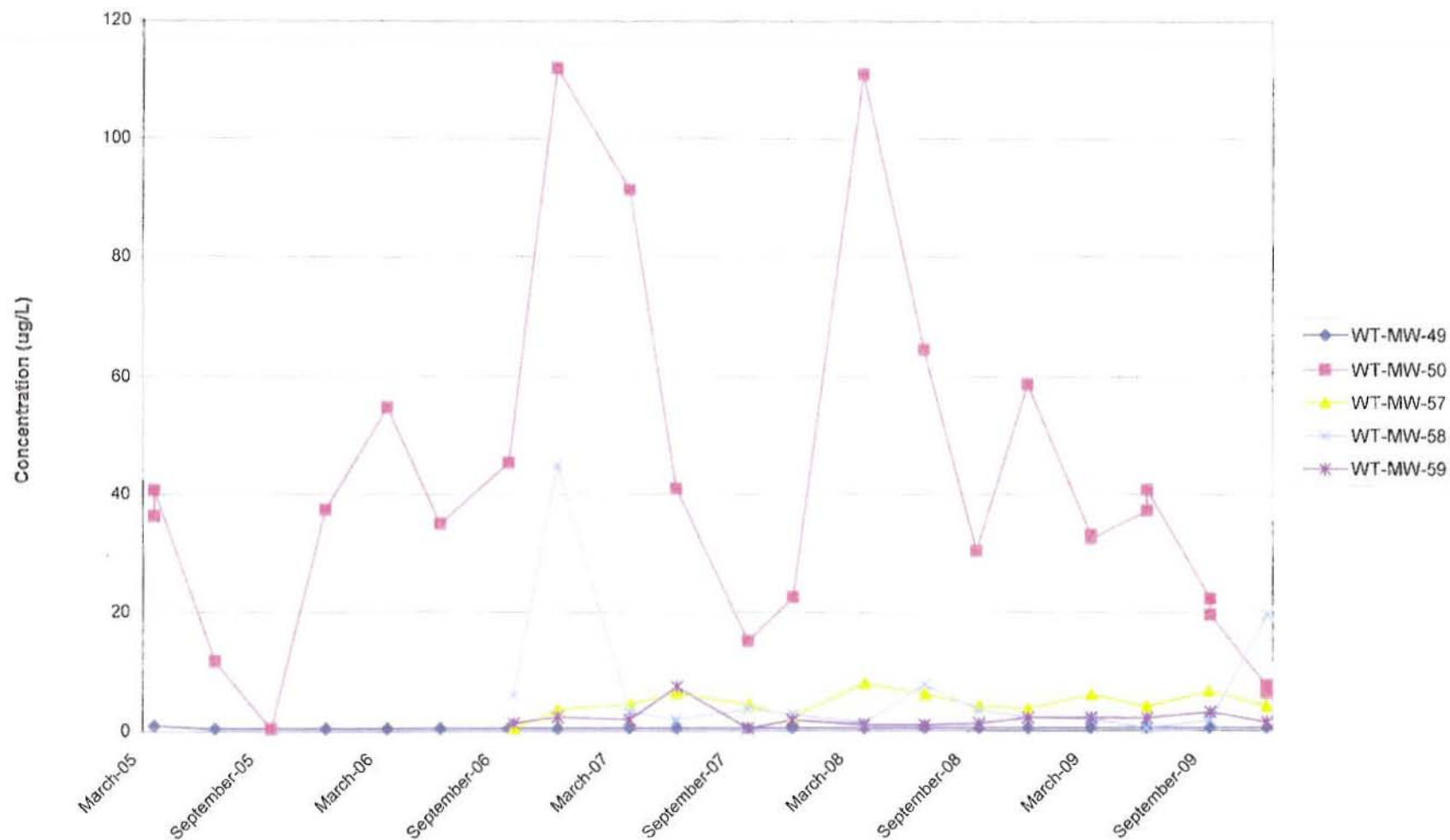


Note: Non-detects shown at one half the Reporting Limit

Tetrachloroethylene (PCE)  
Pratt & Whitney, East Hartford, Connecticut: Willow Brook and Willow Brook Pond  
2009 Annual Groundwater Monitoring Report



**Tetrachloroethylene (PCE)**  
**Pratt & Whitney, East Hartford, Connecticut: Willow Brook and Willow Brook Pond**  
**2009 Annual Groundwater Monitoring Report**



Note: Non-detects shown at one half the Reporting Limit

Date

**Appendix E**

**Post-Remediation Maintenance Monitoring Forms**





**United Technologies/Pratt & Whitney  
Post Remediation Maintenance and Monitoring Program  
Willow Brook and Willow Brook Pond**

Weather Conditions: light rain  
Inspection Date: 3/11/09  
Inspection Time: 13:30

Inspector: Scott Brown  
Reviewed By: Robin McKinney

INSPECTION POINT	DESCRIPTION	GOOD	FAIR	POOR
1) Signs of erosion	Check for gullies of more than 2 inches in depth.			X
2) Signs of settling	Look for ponding and for settling of soil of more than 3 inches over a 5 sq. foot area.	X		
3) Loss of vegetative cover	Check for loss of vegetation cover in any area greater than 5 square feet.	X		
4) Undesirable growth	Check for growth that is in excess of 1/2 inch in diameter (woody vegetation) and taller than 2 feet.			X
5) Signs of ponding and run on	Look for areas of more than 5 square feet of standing water or areas where surface water is running onto cap.	X		
6) Condition of fencing and gates	Check perimeter fence to make sure it is not damaged (no holes greater than 4-inches in diameter), gates are operable, and locks are in place.	X		
7) Condition of rip-rap in Willow Brook stream channel	Observe entire length of stream channel. Verify that rip-rap has not been displaced.	X		
8) Condition of stone layer in Willow Brook	Perform probing of bottom of Willow Brook Ponds at 5 locations in upper pond and 15 locations within lower pond. Verify refusal on stone layer at all locations.	X		
9) Burrowing animals	Verify no holes larger than 2 inches in diameter in cap.			X
10) Monitoring well network	Check concrete collar protective casing, locks, legible well identification.	X		
	1. Condition of lock	X		
	2. Visible ID of wells	X		
	3. Ponding or infiltration of surface water	X		
	4. Condition of concrete collar	X		
	5. Condition of steel casing	X		

**Report all deficiencies to the designated representative of Pratt & Whitney**

List all deficiencies, the corrective measures taken, and the date corrective measures were completed:

1) Signs of erosion in Willow Brook mostly near fence line in parking area.

Corrective Action: The eroded bank was replaced with rip-rap on March 30, 2009.

2) American bamboo overgrowth throughout whole area.

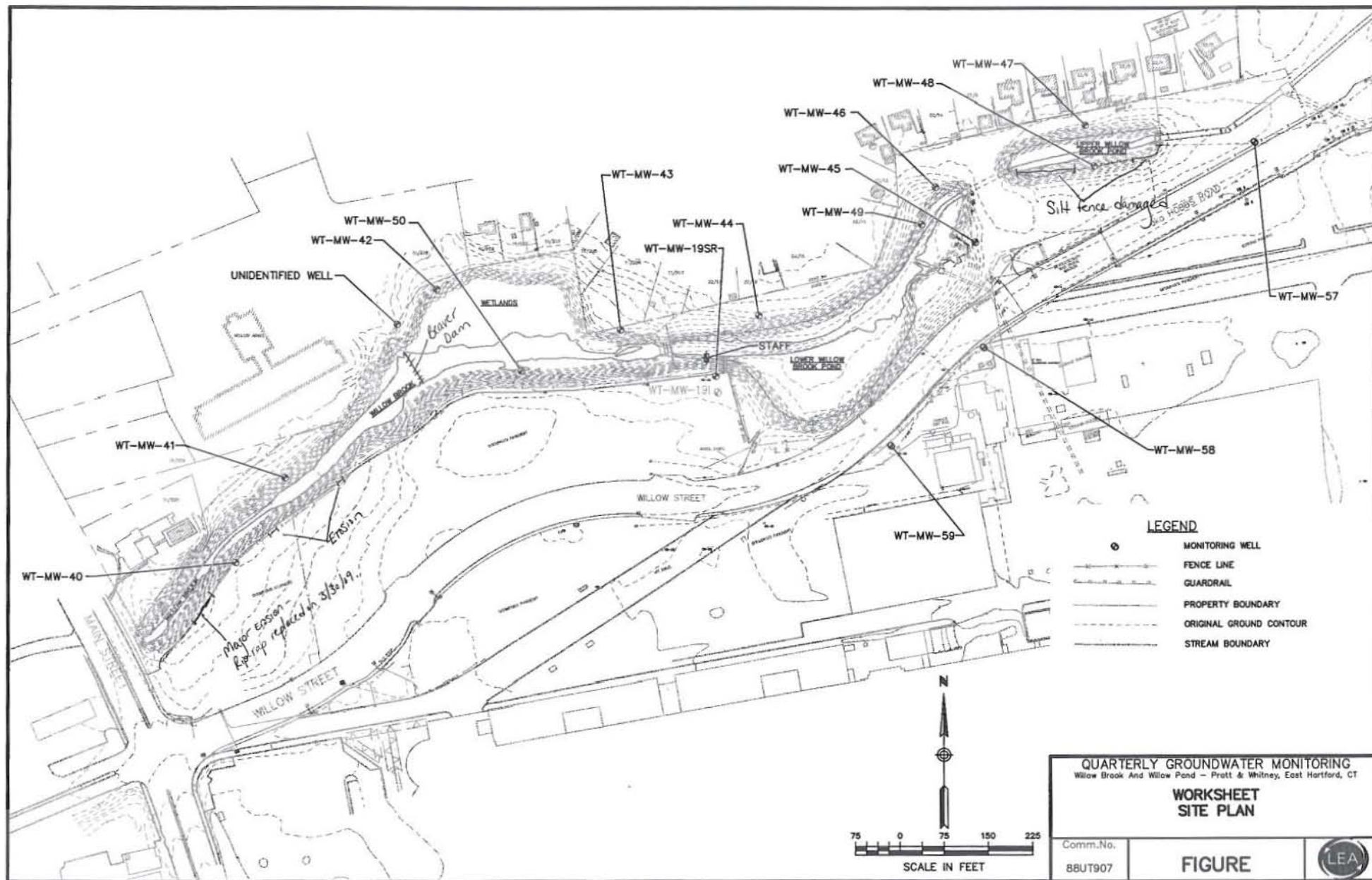
Corrective Action: LEA recommends trimming the overgrowth to keep wells visible.

3) Beavers still removing trees in wetland area and Lower Willow Brook Pond and

Corrective Action: are adding to the dam.

4) LEA recommends removal of the beaver dam.

Corrective Action:





**United Technologies/Pratt & Whitney  
Post Remediation Maintenance and Monitoring Program  
Willow Brook and Willow Brook Pond**

Weather Conditions: 70's overcast, wind 10-30 mph Inspector: Nate Emmons / Dave Bosson  
 Inspection Date: 7/23/09 Reviewed By: Robin McKenney  
 Inspection Time: 1:00 - 4:15

INSPECTION POINT	DESCRIPTION	GOOD	FAIR	POOR
1) Signs of erosion	Check for gullies of more than 2 inches in depth.		✓	
2) Signs of settling	Look for ponding and for settling of soil of more than 3 inches over a 5 sq. foot area.	✓		
3) Loss of vegetative cover	Check for loss of vegetation cover in any area greater than 5 square feet.	✓		
4) Undesirable growth	Check for growth that is in excess of ½ inch in diameter (woody vegetation) and taller than 2 feet.		✓	
5) Signs of ponding and run on	Look for areas of more than 5 square feet of standing water or areas where surface water is running onto cap.	✓		
6) Condition of fencing and gates	Check perimeter fence to make sure it is not damaged (no holes greater than 4-inches in diameter), gates are operable, and locks are in place.	✓		
7) Condition of rip-rap in Willow Brook stream channel	Observe entire length of stream channel. Verify that rip-rap has not been displaced.	✓		
8) Condition of stone layer in Willow Brook	Perform probing of bottom of Willow Brook Ponds at 5 locations in upper pond and 15 locations within lower pond. Verify refusal on stone layer at all locations.	✓		
9) Burrowing animals	Verify no holes larger than 2 inches in diameter in cap.	✓		
10) Monitoring well network	Check concrete collar protective casing, locks, legible well identification.	✓		
	1. Condition of lock			✓
	2. Visible ID of wells			✓
	3. Ponding or infiltration of surface water		✓	
	4. Condition of concrete collar	✓		
	5. Condition of steel casing	✓		

Report all deficiencies to the designated representative of Pratt & Whitney

List all deficiencies, the corrective measures taken, and the date corrective measures were completed:

1) See attached report.

Corrective Action: \_\_\_\_\_

2) \_\_\_\_\_

Corrective Action: \_\_\_\_\_

3) \_\_\_\_\_

Corrective Action: \_\_\_\_\_

4) \_\_\_\_\_

Corrective Action: \_\_\_\_\_

# Willow Brook & Willow Pond Inspection Report

## (inspection conducted July 23, 2009)

An inspection of the Willow Pond engineered cap was completed by LEA personnel on July 23, 2009. The following is a list of maintenance issues identified during the inspection, along with recommended corrective actions.

- 1.) Significant erosion was observed along the southern bank of Willow Brook, just west of the man-made dam and north of the Willow Street parking lot.

Corrective Action: Repair with rip rap.

- 2.) The timber retaining wall forming the eastern side of the man-made dam is still in need of repair. Many of the timbers comprising the wall are severely rotted and the bank behind the wall has been washed out in a few locations.

Corrective Action: Repair or replace retaining wall.

- 3.) A few small areas of erosion were identified along the southern edge of Upper Willow Brook Pond. The erosion is most noticeable where the soil, the silt fence and the rip rap meet.

Corrective Action: Remove silt fence and continue to monitor the area.

- 4.) Clusters of trees that are approximately 0.5 to 2 inches in diameter have taken root above the cap in the rip rap located around the perimeter of Upper Willow Brook Pond and along the eastern perimeter of Lower Willow Brook Pond.

Corrective Action: Cut and remove trees to prevent damage to the cap.

- 5.) The beaver dam previously identified in the wetland area, downstream of the man-made dam is still intact and has bushes growing on it.

Corrective Action: Remove beavers and dam.

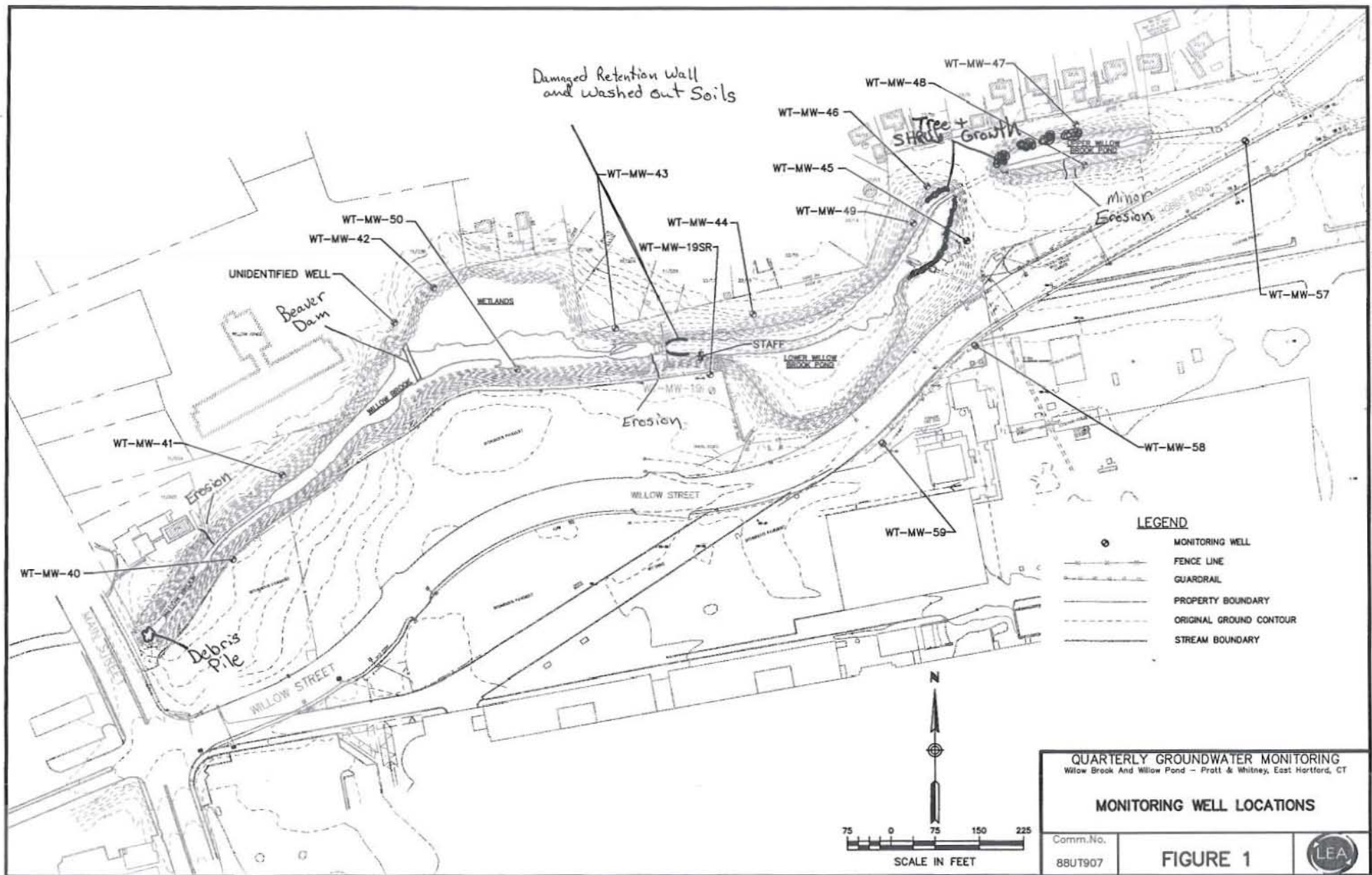
- 6.) A large debris pile consisting of logs, branches, sticks and garbage is located across Willow Brook in front of the culvert that runs beneath Main Street, on the western border of the Pratt & Whitney property.

Corrective Action: Remove debris pile to prevent flooding.

- 7.) As previously noted, a large washout is located, beneath the fence line on the north side of Willow Brook, approximately 150 feet west of monitoring well WT-MW-41. The

washout has caused an approximately three foot gap between the bottom of the fence and the ground.

Corrective Action: Document existing conditions with measurements and photos and continue to monitor the area.





10 of 10

**United Technologies/Pratt & Whitney  
Post Remediation Maintenance and Monitoring Program  
Willow Brook and Willow Brook Pond**

Weather Conditions: Rainy  
Inspection Date: 9/15/2009  
Inspection Time: 4:30

Inspector: Heather Grimm/Rob Zurkewski  
Reviewed By: Robin McKinney

INSPECTION POINT	DESCRIPTION	GOOD	FAIR	POOR
1) Signs of erosion	Check for gullies of more than 2 inches in depth.		X	
2) Signs of settling	Look for ponding and for settling of soil of more than 3 inches over a 5 sq. foot area.		X	
3) Loss of vegetative cover	Check for loss of vegetation cover in any area greater than 5 square feet.	X		
4) Undesirable growth	Check for growth that is in excess of 1/2 inch in diameter (woody vegetation) and taller than 2 feet.			X
5) Signs of ponding and run on	Look for areas of more than 5 square feet of standing water or areas where surface water is running onto cap.		X	
6) Condition of fencing and gates	Check perimeter fence to make sure it is not damaged (no holes greater than 4-inches in diameter), gates are operable, and locks are in place.	X		
7) Condition of rip-rap in Willow Brook stream channel	Observe entire length of stream channel. Verify that rip-rap has not been displaced.	X		
8) Condition of stone layer in Willow Brook	Perform probing of bottom of Willow Brook Ponds at 5 locations in upper pond and 15 locations within lower pond. Verify refusal on stone layer at all locations.		X	
9) Burrowing animals	Verify no holes larger than 2 inches in diameter in cap.	X		
10) Monitoring well network	Check concrete collar protective casing, locks, legible well identification.		X	
	1. Condition of lock	X		
	2. Visible ID of wells			X
	3. Ponding or infiltration of surface water	X	X	
	4. Condition of concrete collar		X	
	5. Condition of steel casing		X	

Report all deficiencies to the designated representative of Pratt & Whitney

List all deficiencies, the corrective measures taken, and the date corrective measures were completed:

1) See attached report

Corrective Action: \_\_\_\_\_

2) \_\_\_\_\_

Corrective Action: \_\_\_\_\_

3) \_\_\_\_\_

Corrective Action: \_\_\_\_\_

4) \_\_\_\_\_

Corrective Action: \_\_\_\_\_

# Willow Brook & Willow Pond Inspection Report

## (inspection conducted September 11, 2009)

An inspection of the Willow Pond engineered cap was completed by LEA personnel on September 11, 2009. The following is a list of maintenance issues identified during the inspection, along with recommended corrective actions.

- 1.) Areas of minor erosion were observed in several areas along the bank of the Lower Willow Brook Pond (see attached figure).

Corrective Action: Repair with rip rap.

- 2.) The timber retaining wall forming the eastern side of the man-made dam is still in need of repair. Many of the timbers comprising the wall are severely rotted and the bank behind the wall has been washed out in a few locations.

Corrective Action: Repair or replace retaining wall.

- 3.) The beaver dam previously identified in the wetland area, downstream of the man-made dam is still intact and has bushes growing on it. Signs of beavers were noted along the northern portion of Willow Brook Pond, as trees had been gnawed.

Corrective Action: Set up beaver traps and transport any beavers caught off-site.



